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ANTI-SOCIAL BEHAVIOR

Unless you've been hiding in your 1950s-era fallout shelter out back of your isolated cabin in the North Woods, you are certainly aware that technology is changing the way we communicate. Thus, I'm sure you're not the least bit surprised to see GCI devoting an issue to the topic of social media and how superintendents are using it.

We've been all Twitter and Facebook and such for years now. That's because our job is to provide you with good, relevant info on every viable platform – print, digital edition, website, enewsletters, video, podcasts, social media, etc. Hell, we'd use carrier pigeons if enough people wanted it and we could figure out how to tape little bitty Syngenta and Toro ads on the sides of the birds.

We have to be on every platform because we're at a crossroads in the communications business where your media consumption is evolving. The age of communications choice is here and we're damned well going to be on the leading edge of it.

A recent study we did indicated 86 percent of you still definitely wanted a printed edition of the magazine.

That's bad news for tree huggers, but good news for us since you still want our "core" product because you like to hold it in your hands, turn the pages and keep it in that bigass pile behind your desk for future reference.

On the other end of the spectrum, 6 percent said, "Never send me anything on paper again." Surprisingly, the demographic of the "totally digital" respondents wasn't just techy kids; it was largely older guys who are committed to reducing clutter. They have reached a point where they want to un-hoard. I dig that.

The vast majority of you told us you wanted a little taste of everything. Some wanted to browse the website daily for news. Some preferred the portability of the digital app that allows you to carry the mag around on your phone or iPad. (Did I mention we're the only magazine in the industry that has a mobile app?) A couple mentioned they loved the digital stuff but eagerly anticipated the print version of my column to line their cockatoo cage.

But the really interesting thing about that

study was how many of you wanted it all. You wanted to be alerted via Twitter that we just posted a video demonstration of a new grinding technique on our website and to also be able to read a how-to story about it in print before you sat in on our webinar about the topic. And, like the old Burger King commercials said, we're happy to give it to you your way. That's the way we roll.

The real question is how you and your colleagues are employing those same technologies and tactics to advance your interests at your facility.

I encourage you to read and digest the package of stories whether you're already a full-blown Twitter-head or you're one of the remaining few still trying valiantly to stay off the grid. To those brave souls, I address the following words of wisdom:

Remember how you told everyone that you'd never give up vinyl records?

Remember when you claimed you didn't need no stinkin' cell phone?

Remember how you refused to use e-mail because it was "impersonal"?

Some people don't adapt until it's shoved down their throats. Then, three days later, they always say, "I can't believe I didn't do this before!"

The bottom line is that the communications revolution that started in 1832 when Samuel Morse began sending electronic dits and dashes over a thin copper line has not stopped and will not stop because you "don't have time to fart around on Facebook." When you dismiss social media, you dismiss the future. The future will, in turn, dismiss you.

So, embrace it, my Luddite friends, for it is here to stay... at least until the current platforms become passé. In the meantime, I offer all of you stubborn types who claim they won't succumb to this "silly" trend one final thing to think about: In 26 years of studying ways that superintendents can effectively communicate with golfers, I have never seen anything half as effective as blogging combined with social media to share programs, practices and professionalism. If you don't figure that out, the guy who takes your job certainly will. GCI



Pat Jones
Editorial director and publisher

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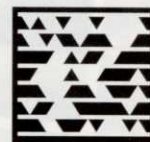
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This winter's big numbers

We thought the last two summers were the ones to remember, but that's only because we didn't know what was coming for the winter of 2011. Regardless of what the lack of a solid winter throughout much of the country means for golf, the season just kept breaking records with temperatures and conditions that kept the heat on turf – more than a dozen major cities hit new all-time highs through the month.

Accuweather.com compiled a list of some of those astounding numbers. Here's a look at March 2012:

The 'Heat Wave' of March 2012, by the Numbers

9 The number of consecutive days that Chicago, Ill., has broken a record high, from March 14 to March 22. Eight of those days saw the mercury climb above 80 degrees, which is normal for mid-June.

93 The temperature swing that occurred over the course of just nine days in International Falls, Minn., from a low of minus 14 degrees on March 9, to a high of 79 degrees on March 18. Also, 10 straight days of new record highs (March 13 to March 22).

26 The number of inches of snow that melted over the course of just seven days in Caribou, Maine, from March 15 to March 22, thanks to the unusual warmth. Also, 18 inches of snow was still on the ground when the first record high fell on March 18 (64 degrees).

32 The gap, in degrees, between the old and new record high on March 21 in Marquette, Mich. The new record high was 81 degrees, obliterating the old record of 49 degrees. The margin of defeat was so great that the low temperature that day was even higher than the old record high temperature.

21.2 The temperature departure (in degrees fahrenheit) from normal for the month of March thus far in Winnipeg, Canada. This occurred despite temperatures having dropped below zero for four days early in the month.

1921 The last year it was above 80 degrees in Boston before March 28 of any given calendar year. In reaching 83 degrees on March 22, this came to fruition for the first time since March 21, 1921.

86 The new all-time record high temperature for March in Detroit, Mich., set on March 22. In fact, a new all-time high temperature was set two days in a row, with the mercury first climbing to 84 degrees on March 21.

60 The average low temperature in Chicago, Ill., from March 17 to March 22 of this year. Such low temperatures, about 30 degrees above normal, are more typical for mid-June.

FROM THE FEED

GCIMagazine
@GCIMagazine
Heard the odds of winning the Mega Millions jackpot now are lower than two aces in the same round of play. Which would you rather have?

Joe Jemsek
@jemsekgolf
Mega Millions, would buy my own golf course and make every par three with funnel style greens for the hole-in-ones!

Join the conversation
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Gangway!

Do you have any large swaths of turf about, oh, 40 yards wide that need to be cut regularly? A record-breaking mower coming from Jacobsen might fit the bill, even if it doesn't fit in your shop. The J96-OVRKILL will operate 96 22" reels in two rows: 64 reels up front and 32 below the driver. The mower will be powered by a 550 HP, V-12 big block engine.

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The engineers at Jacobsen realized that the J96-OVRKILL wouldn't be able to fit in most maintenance sheds, so they included an integrated cover that expands over the entire machine with a push of a button.

And if you believed any of this, we've got a course in Antarctica to sell you as well! Happy April Fool's!

A pill a day

Cancer affects everyone, and golf course industry professionals are on the front lines in dealing with several types. They're also among those continuing to get information out there on health, cancer prevention and survival.

Dana Garmany, former CEO of Troon, appeared on NBC Nightly News in March as part of a story on fighting cancer recurrence. In his interview, Garmany shared how he has been taking an aspirin daily for the past 10 years at his doctor's recommendation to prevent heart disease. Now the routine might be able to help him prevent another battle with colon cancer, for which he was diagnosed and treated.

According to the story, people who take aspirin have a 15 percent lower risk of dying of cancer and a 38 percent less chance of developing colorectal cancer.



Take a picture

Most superintendents just brought home small knickknacks from the Golf Industry Show. Steven Merkel of Landscapes Golf Group, LLC, in Lincoln, Neb., got some original art to bring back to his course. His name was drawn from those who participated in the Arysta LifeScience booth drawing.

"Based on participation and interest, this is the second year in a row to offer golf course superintendents the opportunity to win an original painting," says Michael Maravich, turf and ornamentals marketing and product manager. "We handed duplicate prints to all attendees at the show, but the one-of-a-kind, framed piece was certainly the grand prize."

Arysta commissioned Lawrence J. Churski, known for his outdoor scenes, to complete the rendition of the fifth hole at Red Rock Country Club Mountain Course in Las Vegas.

Keeping the memory alive

GCI's Monroe Miller talks with Rod Johnson about the growth of the Wee One Foundation and keeping Wayne Otto's legacy alive. *by Monroe S. Miller*

ALL PHOTOS BY JEFF KERNEN



"We raised \$40,000 for him and when we gave him the check he said, 'Oh my.' He died shortly after that, on October 21."

— Rod Johnson

On the professional level, we have many examples in the world of golf and golf turf management of what can be done to honor exceptional individuals and their exceptional contributions. We can think of the Col. John Morley DSA Award, the O. J. Noer Turfgrass Research and Educational Facility, the Old Tom Morris Award, the J. R. Love Scholarship, the Musser Award and the Watson Fellowship. These accolades were all named to honor an individual who had contributed so much, who inspired and who we don't want to forget.

Every once in a while a person comes along whose life and work affect people around him so significantly they are inspired to find a way, when he leaves us,

to never let his legacy be forgotten. They look for a method or a vehicle to honor him that is as unique as the individual was and his contributions were. The most effective way to keep his life before an audience is to provide support that is both valuable and not available by any another group.

So it is with the Wee One Foundation, created by a small cadre of close friend to help ensure that the life and work and ways of Wayne Otto are not forgotten anytime soon. The Wee One is so special because the funds generated are turned around and given to superintendents and their families who have experienced catastrophic and expensive health problems. It helps those in need of financial support because of that illness



Rod Johnson and Wayne Otto together at a course celebration.

or accident. The namesake and the mission make the Wee One a singular organization in our world of turf.

Except for seven years spent in Nebraska (1960 – 1967) as a golf course superintendent, Wayne's

life and career were in Wisconsin. He was the superintendent at Ozaukee Country Club, a course that bordered the farm he grew up on, for 35 years. He worked on the crew for two years after an Army Reserves stint, gradu-

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ated from Penn State's two-year program in 1960 and started his long career.

Playing conditions at Ozaukee were always excellent and Wayne was never hesitant to discuss – usually at some length – what programs were working and which ones weren't as successful. I always viewed him as an outstanding plantsman and that trait, coupled with his keen sense of observation, put him on a different level in the golf turf industry. It always seemed he knew more about the successful culture of *Poa annua* than anyone else I knew.

Ozaukee was the first golf course in the country to attain certification in the Audubon Cooperative Sanctuary Program for golf courses, as I discovered from a display while visiting

the World Golf Hall of Fame in Florida. He was out in front of everyone in adopting what has become a widespread and successful program.

Leadership is a characteristic that came easily to Wayne Otto. He did more than his share in our professional organizations, serving as president of the Midwest Regional Turf Foundation and the Wisconsin Golf Course Superintendents Association. He was a director of the O. J. Noer Research Foundation, a member of the USGA Green Section Committee, and a board member of the Wisconsin Turfgrass Association. He was a willing speaker, offered his golf course for UW Extension research and studies, and never missed educational opportunities. At seminars you could usually find him in the

front row somewhere. And you could count on him to ask speakers some really good questions, sometimes the ones no one else would ask.

Wayne was one of the first to recognize the GCSAA's CGCS program and was one of the superintendents to be certified early in the program.

He loved to play golf, and was a student of golf course architecture. But it was golf course management that most interested him. Anyone who knew him greatly appreciated his ability to talk to anybody. And when he spoke, people listened. I remember one GIS when I decided I was going to tour the equipment show with him. That didn't last long; he'd go six feet and stop to visit with somebody who wanted to talk with him. I doubt he ever

made it completely through the show floor. I was amazed that one superintendent could know so many people in golf turf from all across the country.

He retired in November 2002. On the 12th of November we held a retirement party for him. Steve Mona traveled to Wisconsin from GCSAA headquarters in Lawrence, Kan., Stan Zontek flew in from Philadelphia, and Club Car's CEO Phil Trailles came up from Augusta, Ga. It was a real honor for me to present Wayne our WGCSA DSA the next morning at the Wisconsin Golf Turf Symposium. That meeting was one that Wayne had helped plan each year for a quarter of a century.

Wayne retired from the golf course, but kept his finger in the golf turf business. He did some

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Johnson hangs this photo of Otto and his dog, Max, in his office to keep Otto's memory alive daily.

part-time work for Milorganite, represented Brookside Labs and established "Turfgrass Support Services," a consulting business. We saw him out and about, at meetings and in the field. Although it was no surprise to those who knew him, he took the time to become an author. He collaborated with his good friend Danny Quast to write *Turf Management Tools and Techniques*, a turf text in which they shared their years of experience. Few among us have the knowledge or skill to write that book.

Then he got sick, very sick. Pancreatic cancer took him from us on Oct. 21, 2004. People were greatly affected by his death, upset over how unfair it was for such a great man to experience such a fate. His death inspired the creation of the Wee One, and his best friend, Rod Johnson was there when it was organized. Rod is the golf course superintendent at Pine Hills CC in Sheboygan, Wis., and tells what has happened and

where the foundation is headed in the years to come.

Who was present for your first Wee One meeting?

Well, we started to raise money for Wayne's medical expenses before we were formally the Wee One Foundation. We organized a golf outing at my course – Pine Hills – and held it on Sept. 22, 2004. Wayne was still alive, but very ill. He sprung himself from the hospital despite a very recent stroke, and he stayed with us the whole day, as difficult as it was for him. We raised \$40,000 for him and when we gave him the check he said, "Oh my." He died shortly after that, on October 21.

Who organized this outing?

Mike Handrich, Danny Quast, Beverly Quast, Paul Bastron, Pat Sisk, Chad Ball, Dave Radaj, Mark Petitgoue and myself.

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What happened after this outing?

We got together and decided we wanted to formalize our group, which now included Wayne's widow JoAnn, as well as Beverly Quast, under the 501c3 administrative format and operate as a tribute to Wayne. It was Bill Roberts, past GCSAA president, who rightly noted, "Health issues like Wayne's will keep happening. We need to do something."

We met at Wayne's favorite Mexican restaurant in Milwaukee – it was at a midpoint between Sheboygan and Chicago. We wrote by-laws and benevolence SOP – who will be eligible for help and what criteria will be applied to select a recipient.

How was the name "Wee One" chosen?

Pat Sisk knew the Wee One story, and Danny was actually present when the Wee One story happened. Stan Zontek, Patrick O'Brien, Danny Quast and Wayne Otto were in Scotland on a golf trip. At one course they had gathered with the caddies and were lining up their bets, which at this course included caddies and side bets. One caddy, in reference to Wayne, said, "My money's on the wee one."

Did Wayne live long enough to know about your efforts through this foundation?

I never told Wayne, but Danny was able to tell him before he passed. He was at his home where he was confined.

Obviously you and Wayne had a great friendship despite



The group supports turf professionals with health issues.

the differences in your ages.

When did it all begin?

I was working at North Hills Country Club and I was sent to Ozaukee Country Club on an errand. It should have taken a few minutes, but I was there all afternoon! Shortly after I was named superintendent at Pine Hills. The two clubs had a relationship in golf – it was actually called the Pinezaaukee League – and that helped us get to know one

another. We roomed together at the first NCTE conference in Arlington, Ill., and ate Mexican food for the first time in each other's company.

Did you spend a lot of time with Wayne near the end of his life?

I did, as many of his friends did. Most of it was in his house; we watched a lot of sports in the master bedroom, usually avoiding the "elephant in the room." But not once did he ever say, "Why me?" His attitude was, "I know my fate; you don't."

Did you ever dream the Wee One would grow as it has in these relatively few years?

Never. I was afraid we would see interest dwindle in a couple of years, but after six months or

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Q&A

so I knew it would continue on. We've been working with it long enough that the majority of our members never knew Wayne. The mission of the Wee One has tremendous appeal to people.

You grew quickly enough that you enlisted professional help to run the organization. How has that worked out?

Great. Initially, we wanted a fundraiser, but Luke Cella was a great administrator. He's looking to move more to the fundraising role and we are really happy for that. We need to even out the peaks and valleys in our funding.

I know that Pine Hills has hosted a Wee One tournament every year. The event is legendary in terms of the number of participants, money raised and the good times had. Have you expanded beyond your own golf course?

We have. There is a Wee One event in Virginia that is heading into its fifth season. Minnesota has had two, with a third coming. Michigan has also had two events with an excellent event last year at Oakland hills in Michigan and has an event planned for this year at Country Club of Detroit.

Regarding benevolence, has that effort reached nationwide status?

We have made donations to superintendents in 19 states, from the East Coast to the West Coast and as far south as Texas. We have generated \$480,000 in the existence of the Wee One, and we will go beyond \$500,000 sometime this July.

What's in the future for the Wee One Foundation?

The officers and directors want to build on our success and we are developing plans for an endowment that will secure the organization's mission well into the future. We need to continue to grow because there is more need than new members. **GCI**

Monroe Miller is a frequent contributor to GCI, including the column, "The Monroe Doctrine."

More thoughts on Wayne

Dr. Frank Rossi, Extension Professor of Turfgrass Science at Cornell University, developed a relationship with Wayne Otto during his years on the faculty at Wisconsin. He spoke of Otto in terms of "Wayne's World." This world was one of innovation, passion for golf turf and a keen sense of the practical. Rossi recalls a conversation with Wayne about his fertility program. "Wayne said the key to good greens is to put a padlock on the fertilizer shed after May 1." After Wayne's death, Rossi lamented he couldn't imagine the golf turf world without Wayne Otto.

"Wayne was the best grass grower that I've ever met," says Danny Quast, former superintendent at Milwaukee CC and Medina CC. "He had the best looking and fastest greens and the best fairways." Quast, a 2004 GCSAA DSA recipient, calls Otto a great friend. "Everybody who met Wayne liked him. He was well-renowned and well-respected all over the country." That fact may explain a lot of the success of the Wee One.

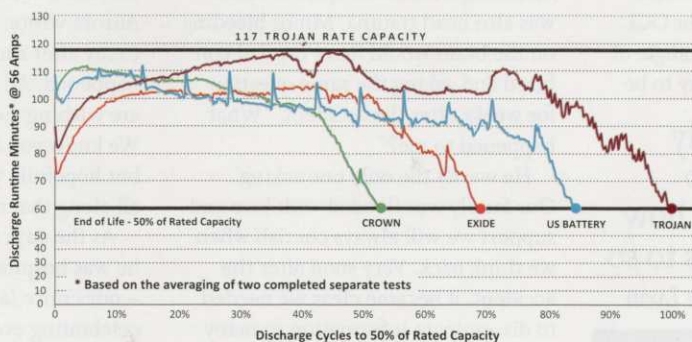
Mike Handrich, superintendent of Racine CC, recalls when he was a young and inexperienced superintendent and needed some advice, he'd call Wayne Otto for help, and Wayne would come right away. "Wayne was a true pioneer of our industry, and he was never afraid to take chances to find a better method or way of accomplishing something. We continue to reap the benefits from his curiosity and innovation today," says Handrich.



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Dennis Lyon, CGCS, is a GCSAA past president. He spent more than 35 years as the golf division manager in Aurora, Colo., and is the 2011 recipient of the USGA Green Section Award. Dennis can be reached at dlyon@gie.net.

THE RIPPLE EFFECT

THE RIPPLE EFFECT (BY LANE LYON)

We've all heard of the ripple effect. An online dictionary describes it as "a series of consequences caused by one single action or event." That's about right. Actually, it's spot on. My entire family would agree as well.

Our ripple struck December 20, 2011. I remember the exact moment. I was at my desk contemplating the upcoming holiday and week off from work when the phone rang. My mom was frantic as she explained my father had been in a terrible accident and was in an ambulance headed for the hospital.

Fast forward five days. It was Christmas Day. In an attempt to deliver an ounce of Christmas cheer, I wore a Santa hat to the hospital. It was a nice try. The truth is, the "ripples" were so strong, smiles were hard to come by.

My father, Dennis Lyon has been active in the golf profession for many years. He was superintendent/manager of golf for the City of Aurora Colorado from 1973 until his retirement in 2010. He is also a past president of GCSAA and a columnist for GCI. Now he was hooked up to a tangle of tubes and wires. He was lucky to be

The "ripple," as truly awful as it was, also opened our eyes to how special our father is to so many people. – Lane Lyon

alive after being hit by a pickup truck. He was on an afternoon stroll with his canine pal, Putter, when the accident happened. The impact was so intense, his back was broken – along with his collar bone, shoulder, pelvis and tail bone. (Putter, by the way, only suffered a minor abrasion).



Dennis Lyon and his son Lane Lyon, together as Dennis continues to heal from being hit by a truck during the holidays last year.

My dad had other injuries too – his right ear lobe had to be reattached, and he had severe internal injuries, including a lacerated spleen. There was also head trauma. Minor bleeding on the brain would leave my dad confused and asking the same question for weeks after the accident, "What happened to me?"

He wasn't the only one asking. Our family was flooded with love and support we will always cherish when we think back. Very soon after the accident, it became clear we needed to disseminate information to many concerned family, friends and colleagues. My sister, Casey, set up a page on a terrific site, CaringBridge.org. If you want to visit, enter dennislyon1. The initial Caring Bridge response was from friends and family. Our cousin wrote, "It might be too hopeful to hope each day will be better, but we always hope it will not get worse."

It didn't take long for us to realize the "ripple" was widening.

Two days after Christmas, Doug McNeil a colleague from the City of Aurora wrote: "It's hard to know what to say after something so tragic has happened. All of us in your golf family are wishing you nothing but the best. We know you have a long road ahead, but hopefully you will feel our support all along that road."

As the days and weeks went on – he was hospitalized for seven weeks – our entire family was at his side celebrating every milestone – IVs out, memory returning, pain settling, physical therapy, first steps, a wheel chair down to dinner, even the first trip to the bathroom! The entire time we were awe struck by thousands of page views to Caring Bridge, (there are over 8,300 to date). The page received hundreds of messages, many from golf superintendents from



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around the world. There were also hundreds of cards and e-mails from people who were concerned about my dad. Our family remains truly grateful for all the support.

Fellow GCSAA Past President Steve Cadenelli, one of Dad's best friends, flew from Massachusetts to Colorado three times to help Dad during his most difficult stretches.

The "ripple," as truly awful as it was, also opened our eyes to how special our father is to so many people. One entry read, "I would not be who I am today without Dennis Lyon, and I pray for his full recovery. He mentored me and many others through soccer and through life, and he is a man of many strengths and overwhelming compassion." Whoa.

Occasionally, we'd think of one person who wasn't posting messages or calling us: the pickup driver. We can't stop thinking about the life changing ripples he set into motion that day. Sure, accidents happen. But only when you experience the ripple effect of something like this do you understand how life can truly change in an instant.

The pain, the injuries and the ripples are something our dad thinks about every hour of every day. We family members are thrilled he's now continuing his recovery at home. Special thanks to all of you who helped my dad by sending positive ripples.

THE RIPPLE EFFECT BY DENNIS LYON, CGCS. Special thanks to my son Lane for sharing his thoughts in the first portion of this article. My wife Penny and our other children, Corey and Lydia, Casey and John and Jesse have also been invaluable during my healing process.

In keeping with Lane's theme of the ripple effect, I was the stone in the middle of the pond which caused

In keeping with Lane's theme of the ripple effect, I was the stone in the middle of the pond which caused the ripple.

—Dennis Lyon



Above, Dennis with his canine companion, Putter, and below, surrounded by family.

the ripple. However, a stone does not move from the edge of the pond into the water under its own power. In my case, an irresponsible driver caused the ripple when he hit me with his pickup, threw me up onto the hood, and then caused me to fall from the hood onto the pavement. Fortunately for me, the next thing I remembered after the accident came eight days later in the University of Colorado hospital. My family was there at my side. I had fortunately survived eight days of intense pain and surgeries. My family was there throughout this very difficult time. They were wonderful and invaluable.

As the ripple has grown I have been overwhelmed by the support

and prayers I received from City of Aurora employees and other friends and colleagues from the world of golf and elsewhere. The kind words and support I received have brought me to tears many times. The generosity I have received from GCSAA, the Wee One Foundation and many individuals has been amazing and so valuable during this financially difficult time.

Throughout the past several months I have seen and experienced both negative and positive ripples. On the negative side I was severely injured and almost died. My recovery has been slow and at times I have wondered, "Why me?" My family has suffered and paid an amazing emotional price. On the positive side, so many people have been kind, caring and helpful. I have also grown personally. I feel I am a more compassionate person and am committed to assisting others as much as possible.

What then do I need from you? I need you all to avoid creating a negative ripple on yourself, your family, another person or another family. For starters, please make sure you and your employees operate in a safe work environment. You and your family must always live safely. Don't drink, text or even talk on your cell phone while you drive. Always drive responsibly. Don't be like the pickup driver who hit me. Please do whatever it takes to keep from injuring yourself or someone else. Life is short and we have to spend it all with one body and one brain. I am lucky I had a broken back with no life-changing physical injuries. I also suffered a brain injury without life-changing impacts. I thank God and all of you who helped and supported me. Let's all spend our future surrounding ourselves and others with positive ripples only. No negative ripples allowed ever, you are all too important. **GCI**

HOW ARE YOU TRENDING?

GCI blows the lid off social media.

Our experts offer a crash course to get it to work for you.



by John Torsiello

Social media trending and turf

Is adopting a social media strategy right for you and your turf ops? GCI explores the Pros and Cons.



"Social media also helps address some of the issues you hear about through the grapevine quickly."

— David Marach
NorthBrook Country Club

"Twitter is good for those quick little updates but the blog is great to show pictures and videos and expound on them."

— Tim Johansen,
Palmer Hills Golf Club

A brave new world

Social media compliments a professional approach to golf course maintenance.



These days, if you don't stay at least even with the technology curve you'll find yourself swimming against the tide in no time.

Golf course superintendents across the country are turning to social media for a plethora of reasons, including to get the word out about course conditions, communicate with staff, members and the general public, network with others in the industry and research.

Chuck Connolly, superintendent at Greenville Country Club in Greenville, S.C., uses a variety of social media, including Facebook, LinkedIn, Twitter and My Blog, although he rarely uses Facebook because he believes it shares too much personal information.

"I use LinkedIn and maintain an up-to-date profile," Connolly says. "LinkedIn is more professional and less personal, so I use it more. Twitter is used periodically to update course conditions to membership."

Connolly blogs bi-weekly to reach out to members. He also finds social media a tool to glean industry information.

Ryan Moore, superintendent at Forest Lake Country Club in Bloomfield Hills, Mich., is hooked on blogging. He runs the maintenance blog at <http://flccgreens.blogspot.com> and uses it as a communication tool for membership, to educate and make them aware of things that are happening on the golf course. He's also recently joined LinkedIn.

"The blog is the best communication tool I have seen," he says. "I am able to convey the message I would like to communicate, when I want and how I would like it to be presented. I have the ability to deliver my message to the entire membership instead of having to relay the message multiple times and have others change the context as they pass the message on to others. It also serves as an archive for projects and different changes that have

happened to the golf course."

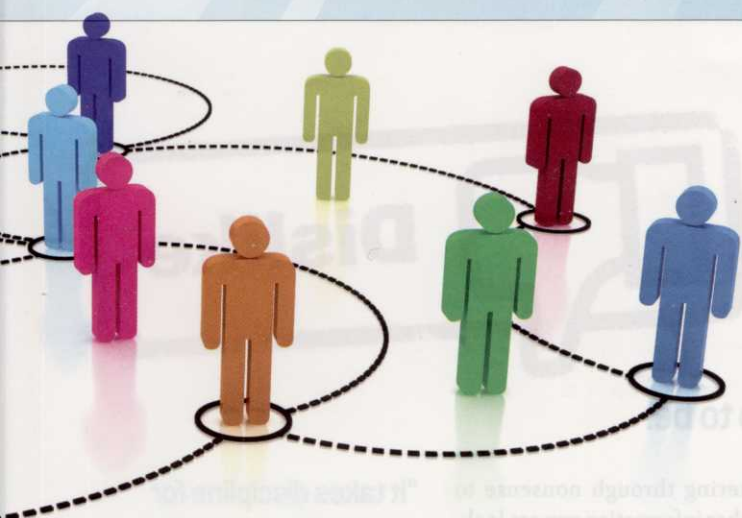
The blog was instituted last winter to communicate with members instead of traditional posted messages and fliers.

Moore says to keep blogs short and to the point.

"Exercise the message you would like to convey," Moore says. "I have seen many different ways to communicate through a blog that are effective. But I believe short and to the point, with pictures to support, is the best approach. I find keeping the message positive and avoiding politics helps."

David Marach, superintendent at NorthBrook Country Club in Luxemburg, Wis., uses Facebook to a large degree. It helps explain with pictures why they are doing what they are doing or what needs to be done in the future.

"It also keeps you in touch with the members through the off-season with what is going on in the Grounds and Greens department — reel grinding, tree maintenance, ice or snow issues,"



4 reasons your members like social media

Many superintendents site the reasons for adopting social media is to use it as a communications tool for club members or regular players at their course. However, there are some other reasons why your course's players appreciate social media.

1

Allows them to make a connection to be engaged and immersed with the course.

2

Enables them to share opinions about the course.

3

Allows quick and easy comparison of what's happening at other facilities and clubs in the area.

4

Validates course conditions and decisions that may impact play.

— Adapted from 2011 research by advertising agency Leo Burnett Worldwide

Social media and the bottom line

Brian Benedict believes a solid social media strategy can help the bottom line.

"Through social media, I am able to look inside other facilities like ours and see the problems they face and how they solve them, as well as seeing how other guys are cutting back to try and save money," he says.

Benedict, superintendent at Seawane Golf Club in Hewlett Harbor, N.Y., is very active with social media, using a public page on Facebook to post pictures when he and his staff undertake bunker restoration or other capital projects. He also sends bi-weekly emails to the membership through the club website to update members on projects and cultural processes to the golf course. He says the mass email has been welcomed by the members because it makes them feel more involved and able to schedule visits with guests around course work.

"The biggest benefit is the communication factor," Benedict says. "Members feel more involved and actually ask questions and genuinely want to know and understand why we perform the processes that we do. I also think that it gives you more credibility because members actually know that you have a plan."

"It helps us do our job better because it gives the members ownership," he adds. "When they know what you're doing there is no second-guessing because everyone is on board with the program. And it can help the bottom line getting projects approved by members due to communication and the effect that it has on their understanding the necessity of the desired project."

When used judiciously and with a specific golf course-oriented focus, social media can be a valuable tool superintendents have at their disposal to "interface" with other superintendents, staff and members instantaneously.

he says. "Social media also helps address some of the issues you hear about through the grapevine quickly. I started last year and I am slowly getting other employees of my department involved since we are usually leaving when most golfers are coming out to play."

Marach is hoping to get onto Twitter soon, as it provides "instant information" to members.

"It really helps here in the spring or after a large rain event to explain why we are not able to open or why we are delayed," he adds.

Marach is convinced using social media has a positive effect on a club's bottom line. "You might have followers that have heard of your golf course but never been there," he says. "You can encourage them to golf or dine because they might be a little more curious. You also might have followers that are not golfers and may become interested in golf. Social media just gives your company and your department more exposure to the public."

Tim Johansen, superintendent at Palmer Hills Golf Club in Bettendorf, Iowa, uses several social media sites, such as Facebook, but he is "trending" more toward Twitter. He also relies on a blog to get the word out about what he

and his staff are doing, and course conditions. But the results have been mixed.

"After seeing an upswing in Twitter use over the winter, I am going to start an account specifically for the golf course and tie it into my blog. Twitter is good for those quick little updates but the blog is great to show pictures and videos and expound on them. I started the blog when I took over as superintendent 18 months ago, thinking that I would be adding something to it every day. We have had a lot of changes and projects that have taken place in the last year and another very busy year ahead. But I am not so sure that golfers at the local muni, as a rule, care about what really goes on on a daily basis."

He's hoping to change that through increased use of social media and making customers aware of the information.

"I have had a lot of viewers from all over but getting them to sign on as a (Facebook) friend is not as easy as it sounds. I really wish that members and customers of golf courses everywhere would look at what is being put out there for them to read. I know it would help them understand better why we do the things we do."

Oh, the horror...

Social media might not be all it's all cracked up to be.



By now you've heard the horror stories about improper use of social media.

John Ausen, superintendent at Hyperion Field Club in Johnston, Iowa, warns, "It's amazing what people will put on social media not realizing that anyone can view it. Don't say anything that you don't want your superior to see."

Sound words of advice.

David Smith, superintendent at Abbey Springs Golf Club in Fontana, Wis., says there is a temptation to play to a specific audience, which may water down the message.

"It takes discipline for me to limit my Twitter account to course-related information because I really have lots of opinions about all kinds of current events and matters not related to the golf course," Smith says. "Using this type of communication for those areas of discussions could be perilous for your career. You must remember your audience. When starting a Twitter account, other superintendents quickly find you and become part of your audience.

"There can be a temptation to play to the superintendent audience," Smith adds. "I feel that there is the potential for problems if you start to Tweet for your superintendent audience. Giving the type of details regarding daily (golf course maintenance practices) may expose you to criticism by members."

Ralph Kepple, superintendent at East Lake Golf Club in Atlanta, Ga., says with Facebook it is easy to get drawn into more social/friendly uses than for business.

"It takes a lot of focus to keep from doing that," Kepple says. "With LinkedIn, as you build-up contacts, you get more and more requests to connect. Sometimes it becomes almost overwhelming how many requests you may receive, and you start to question if it is worth staying involved in LinkedIn. I know of at least one superintendent who recently closed his profile because of how much time it was taking to accept/reject requests to connect."

He advises superintendents to fully think through what they post on a social media site. "Once it is out there you cannot retract it," he says. "Also be careful that you don't become 'addicted' to the social media outlets. Some people end up spending far too much time on social media that could be better spent on other phases of their job or with their family."

Sean Flynn, superintendent at Great River Golf Club in Milford, Conn., is a proponent of blogging as a way to get information out. But, he says, technology can take you only so far in the industry.

"I started using Facebook about three years ago," Flynn says. "I find it somewhat useful. However, to have it help the business of a golf course superintendent you need to invest time

filtering through nonsense to gather information you are looking for. I have found Facebook to be more personal than business-related. Facebook forces us to be more 'in touch' with people we are usually not in contact with, and conversely out of touch with people we are close to."

To be successful at a blog you need to be constantly updating and informing. "Although communication is the most important role in our success as superintendents, blogs take time," he adds.

Flynn prefers to hold informational sessions with members on the first tee on Saturday mornings. It is much more personal, he adds, and gives members the opportunity to ask questions face to face. "Members would rather talk to us about issues or problems on the golf course directly, not have to read them on a blog," he says.

While useful, social media hasn't made a dramatic pact on the way Flynn does his job.

"Social media, as of now, has not helped me do my job better," he says. "We must be on the golf course as much as possible to be successful.

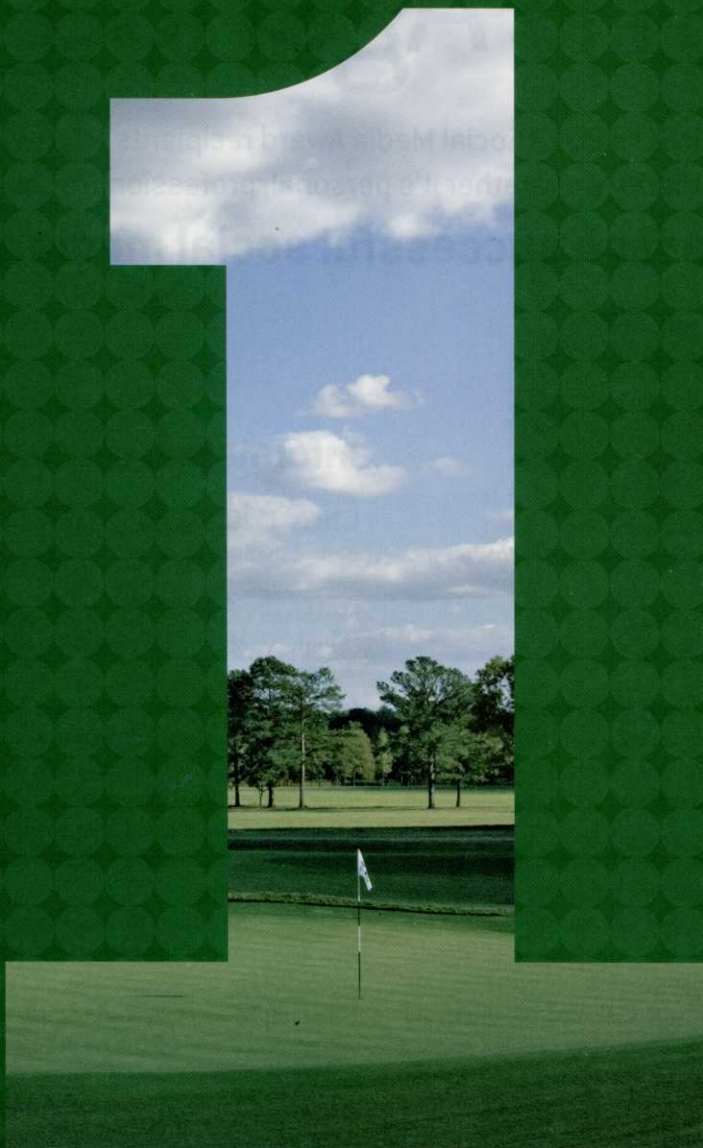
"Sitting behind a computer does not make us better superintendents," Flynn adds. "Continuing education, trade publications, research and networking (to a degree) make us better superintendents." GCI

"It takes discipline for me to limit my Twitter account to course-related information because I really have lots of opinions about all kinds of current events and matters not related to the golf course."

— David Smith,
Abbey Springs Golf Club



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The Agenda

We ask GCI's 2012 Social Media Award recipients to provide some clarity on whether it's personal, professional or both.

What makes for a successful social media strategy?

Stay connected



Darren Davis

The Kaminski Award for Outstanding Social Media Leadership
Superintendent
Olde Florida Golf Club
Naples, Fla.

Information center



Chris Tritabaugh

Best of the Blogs
Superintendent
Northland Country Club
Duluth, Minn.

“Social networking is not a fad; it’s a way of communicating that’s here to stay. I feel I’m embracing technology that younger generations have grown up with and accepted as a normal and customary way to communicate. It’s the way of the future, and I certainly want to be ahead of that curve.

“One of the things I love about our industry is that even though we compete for members and play, as superintendents, we’re always there to help each other. One thing I feel that has made me more successful in life than I would have been is my network of friends. I’ve worked for 20 years to develop that network and communicate with it in many ways, and social media has allowed me to expand my network not only to the people already in it but people I haven’t met personally yet. I’ve embraced all the social media outlets out there, and each has a different group with different personalities and I enjoy them all.

“I have a bad habit of my living my life through my work, so my social networking is geared more toward my peers: superintendents and turfgrass professionals. But I do show a little of my personal side through social networking, too. Some of our members have embraced social media, in particular “liking” my old Florida Facebook page, so they see my postings and it’s a great to communicate with them, too.

“In many industries, being successful is often a function of who you know and how connected you are. I pride myself on that. Having met so many people by getting out there at chapter meetings or being online certainly is good. It’s a good thing when people are talking about you, and it never hurts to be seen and visible.”

“The main goal of my blog is to provide a source of information for the members, and so I write it with them in mind. But at the same time, I think it has the secondary purpose of making myself more visible within the industry. That wasn’t my original intent, but I would be lying if I said it wasn’t a huge advantage. But the primary purpose is to keep our membership up to date and educate them on what we’re doing.

“We’ve done some different things in my five years at the golf course, and, as a result of the blog, they were more well-received and well-understood by our membership and therefore able to be implemented. For example, we really made a push to increase bentgrass populations two years ago, and I think we got a little too aggressive. As a result, we had some dead grass on the greens. I was very forward in telling the members what was happening via my blog and posting pictures. I told them we were trying to figure out the best way to do this because we knew we could provide them with a better product at a better price, but we might make some mistakes along the way. As a whole, members got it, and the blog helped them.

“I write my blog as if every single member is reading it every day. The reason is because I feel that we don’t have to have everybody reading it, but if a certain percentage are, it will help keep the rest of the membership updated and informed. If one out of the four people in a foursome is an avid or regular reader of my blog, then I feel it’s doing its job.

Even though my blog was intended for members, the majority of the audience reading it are my peers. So I do try to include stuff for them, but I try not to write over the heads of those who aren’t turf people.

“I’m kind of on the edge of that generation of people who sort of use their computer but it’s not their life. I immediately saw the benefit the blog could have and didn’t fear it whatsoever. More and more, I see people realizing the benefits and advantages it could have.”

Educational tool

Steve Cook, CGCS, MG

Best of the Blogs
Oakland Hills Country Club
Bloomfield Hills, Mich.



Entrepreneurship

Bill Brown, CGCS

Best of the Blogs
Hartefield National Golf Club
Avondale, Pa.



I started my blog specifically to reach more members, but since then it has morphed into more than that. It has become an education for me, too, because when I post something about agronomy, it actually causes me to pull out the books and investigate to make sure I get it right. So it takes me back to Agronomy 101 and reminds me of the basics.

"Most of what I post, however, is for the members: what's happening on the golf course, whether it's hot-button issues or that we're aerifying or whatever. My goal was to reach 50 to 100 members, and right now I probably have 50, with 25 who are pretty religious about reading my blog on a regular basis. But the good news is that two of those 25 are board members, and one is a greens committee member, so when another member asks them something, they'll say go look at the blog. Or they'll be armed with the information to answer their questions.

"Overall, it has been a big positive for me. I don't want to be 60 years old and have the members say this guy isn't up to speed. I don't want to be one of those people who is 52 and acts like they're 70. This dawned on me several years ago when I was trying to get a hold of my greens committee chairman, who is 10 years younger than me, by phone. He wouldn't return my calls or e-mails, but he started texting me. I thought, well, if my greens committee chairman prefers to communicate by text, then I should be doing it, too. When I started my job at Oak Hill, I probably went through 10 phone messages a day. Now, if I get 10 a week, that would be a lot. About 90 percent of my communication with members happens at either the first tee, the pro shop or the men's grill, and that will always be the case. But my blog is just an add-on for those younger members who want that style of communication.

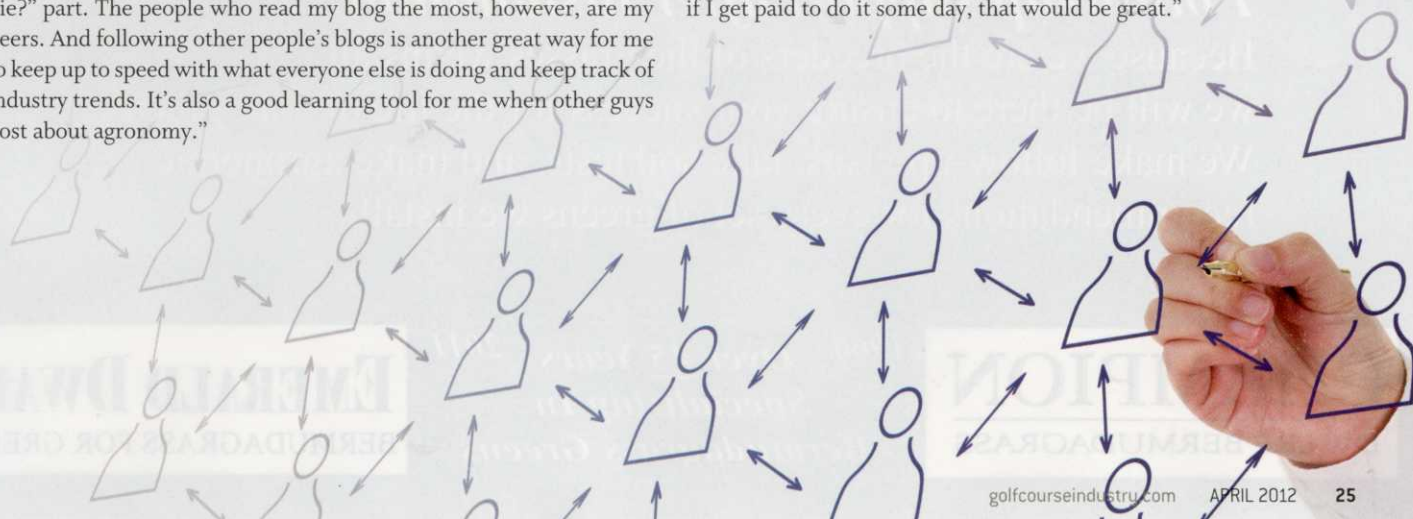
"The members really like my blog. Every once in awhile, someone will say, 'I saw it on your blog!' But they really like the 'Where's Sadie?' part. The people who read my blog the most, however, are my peers. And following other people's blogs is another great way for me to keep up to speed with what everyone else is doing and keep track of industry trends. It's also a good learning tool for me when other guys post about agronomy."

My goal with social media and technology is definitely a professional one. I started my own business, iTurf Apps, realizing there was a void in the industry and the interest in technology was overwhelming. I've always said if I could marry my love of turf with technology, I would have the perfect job. And I'm hoping it goes in that direction.

"I started my blog in 2009, recognizing that the industry needed a go-to technology person. So I wrote about how to best utilize technology in the industry, and so far a lot of the content has been about iPhones and iPads and using those apps and technologies on the golf course. People's excitement really started picking up in 2011 right after GIS. I got slammed with people asking how do I set up my iPhone, so I started writing more about that in my blog. After GIS this year, it was even more overwhelming. I was up every night till 11:30 p.m. answering emails, Tweets and phone calls. The blog and technology consulting has almost become a second job at this point. I've become a conduit to help people build blogs and websites and integrate mobile technology into their businesses.

"The neatest part was that a superintendent from Oregon called me recently to ask how he could stream his son's baseball games to his parents live. I set him up on how to do that, and I thought that was really awesome.

"iTurf apps has gone professional now, and I was recently picked to redo one of the GCSAA affiliate chapter's websites, which will relaunch shortly. I have a whole list of services we're going to start offering, and the best part of iTurf Apps is it doesn't cost a lot. Technology doesn't need to cost a fortune anymore. And now I'm branching into doing demos of Rainbird's MI controller and ISS soil monitoring system. My ultimate goal is to make iTurf Apps the destination for people who want to know about Toro, Rainbird, Jacobsen or fertilizer technologies. And if I get paid to do it some day, that would be great."



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-No-Till conversion from bentgrass to CHAMPION

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-No-Till conversion from other bermudagrass to CHAMPION

Carthage Country Club - Carthage, TX

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-No-Till conversion from other bermudagrass to CHAMPION

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-No-Till conversion from other bermudagrass to CHAMPION

Cherokee Valley - Olive Branch, MS

-No-Till conversion from bentgrass to CHAMPION

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-No-Till conversion from bentgrass to CHAMPION

Delaware Springs - Burnet, TX

-No-Till conversion from other bermudagrass to CHAMPION

Emerald Bay Club - Bullard, TX

-Greens renovation using EMERALD

Glenlakes Golf Club - Foley, AL

-No-Till conversion from other bermudagrass to CHAMPION

Harder Hall GC - Sebring, FL

-No-Till conversion from other bermudagrass to CHAMPION

Heddingham Golf Club - Raleigh, NC

-No-Till conversion from bentgrass to CHAMPION

Heritage Golf Club - Oneonta, AL

-No-Till conversion from bentgrass to CHAMPION

Highlands Ridge South - Avon Park, FL

-No-Till conversion from other bermudagrass to CHAMPION

Hillwood Country Club - Nashville, TN

-Greens renovation using CHAMPION

Hope Valley Country Club - Durham, NC

-No-Till conversion from bentgrass to CHAMPION

Inverrary CC - East Course - Lauderhill, FL

-Greens renovation using CHAMPION

Knobbs Creek - Elizabeth City, NC

-No-Till conversion from bentgrass to CHAMPION

Legends at Chateau Elan - Braselton, GA

-No-Till conversion from bentgrass to CHAMPION

Magnolia Greens Golf Plantation - Leland, NC

-No-Till conversion from bentgrass to CHAMPION

Memphis National - Legends - Collierville, TN

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Mohawk - Pecan Valley - Tulsa, OK

-No-Till conversion from bentgrass to CHAMPION

Mount Airy CC - Mount Airy, NC

-No-Till conversion from bentgrass to CHAMPION

Myrtle Beach National - River Club - Pawleys Island, SC

-No-Till conversion from bentgrass to CHAMPION

Mystic Creek Golf Course - El Dorado, AR

-Newly constructed course using CHAMPION

Orange County National - Panther Lake - Winter Garden, FL

-No-Till conversion from other bermudagrass to CHAMPION

Pauls Valley Golf Course - Pauls Valley, OK

-No-Till conversion from bentgrass to CHAMPION

Pebblebrook Golf Club - Woodbury, GA

-No-Till conversion from other bermudagrass to CHAMPION

Pine Forest - White Course - Houston, TX

-Greens renovation using CHAMPION

Pine Valley Country Club - Wilmington, NC

-No-Till conversion from bentgrass to CHAMPION

Pinewood Country Club - Asheboro, NC

-No-Till conversion from bentgrass to CHAMPION

Pleasant Valley CC - Little Rock, AR

-Greens renovation using EMERALD

Providence Club - Monroe, GA

-No-Till conversion from bentgrass to CHAMPION

Red Stick Golf Club - Vero Beach, FL

-No-Till conversion from bentgrass to CHAMPION

River Bend Links - Tunica, MS

-Greens renovation using EMERALD

River Landing - Landing Course - Wallace, NC

-No-Till conversion from bentgrass to CHAMPION

Riverwood Golf Club - Clayton, NC

-No-Till conversion from bentgrass to CHAMPION

RTJ Trail at Capitol Hill - Senator Course - Prattville, AL

-No-Till conversion from bentgrass to CHAMPION

RTJ Trail at Grand National - Lake Course - Opelika, AL

-No-Till conversion from bentgrass to CHAMPION

RTJ Trail at Hampton Cove - River - Owens Crossroads, AL

-No-Till conversion from bentgrass to CHAMPION

RTJ Trail at Magnolia Grove - Short Course - Semmes, AL

-No-Till conversion from bentgrass to CHAMPION

RTJ Trail at Silver Lakes (36 holes) - Glencoe, AL

-No-Till conversion from bentgrass to CHAMPION

Sammons Golf Links - Temple, TX

-Greens renovation using EMERALD

Sewell's Point Golf Course - Norfolk, VA

-No-Till conversion from bentgrass to CHAMPION

Starmount Forest Country Club - Greensboro, NC

-No-Till conversion from bentgrass to CHAMPION

Stonebridge Golf Club - Lakeland, TN

-Greens renovation using CHAMPION

Stonebridge Golf Club - Rome, GA

-No-Till conversion from bentgrass to CHAMPION

Sun 'n Lake Golf Club - Deer Run - Sebring, FL

-Greens renovation using CHAMPION

Swan Lake Golf Club - Clarksville, TN

-No-Till conversion from bentgrass to CHAMPION

Tally Mountain Golf Course - Tallapoosa, GA

-No-Till conversion from bentgrass to CHAMPION

TwinEagles Golf Club - Naples, FL

-Greens renovation using CHAMPION

Wexford Plantation - Hilton Head Island, SC

-Greens renovation using CHAMPION

Woodlands Country Club - Tamarac, FL

-No-Till conversion from other bermudagrass to CHAMPION

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Just because it's fun

Greg Shaffer

Innovative Use of Twitter
Superintendent
Elcona Country Club
Briston, Ind.

"I started off using Twitter about a year and a half ago to interact with fellow superintendents and build a network where we could have quick-hit question and answer sessions on turf diseases, topdressing strategies and other topics. Then, throughout the course of the summer when everyone was struggling with the heat and humidity and everyone's moods were down, it kind of took a little bit of a turn. I thought, hey, maybe we can not only use social media to build relationships but have a little fun by throwing some humor in there and putting some smiles on people's faces. It evolved into a thing of its own with this group, and it seems to be getting larger and larger. Not only do we banter back and forth about what's going on around the golf courses, but we beat the snot out of each other, too, just because it's fun.

"In the winter, when nobody really has a lot going on, it's geared more to the personal side. But then come spring it's boom, like a light switch, everyone is asking, hey, is your course open? What applications are you putting out? What are you seeing? But still we manage to have fun with it. I've met a number of these guys I've built relationships with at GIS or at a seminar somewhere, and it feels like you already know them.

"Twitter has been an incredible tool to get to know people, 140 characters at a time and then also when you meet them face-to-face. A separate account I just opened up is geared strictly to members. It makes it that much easier to tell them, hey, we have a frost delay today so the first tee time will be 9 a.m., or we're aerifying some tees or fertilizing roughs today. It serves as a daily update on stuff that's happening that's atypical from a normal day."



The snowball effect

David Phipps

Innovative Use of Twitter
Superintendent
Stone Creek Golf Club
Oregon City, Ore.

"I started Tweeting as a way to promote my blog. I use Twitterfeed as a link to my blog post, so when I make a post it automatically goes out to the Twitter world. It's a great way for people to see what I'm writing in my blog on a daily basis. I started writing my blog as a weekly report to my stakeholders. Originally, I was writing a Word document and sending it to them every week. Then, in 2009, I saw someone writing a blog and thought that would be a great way to do this weekly report. Now, every time I post it goes directly to their inboxes. If I didn't do this, they wouldn't know what I do on a daily basis. Then more and more people began reading my blog, and not just people from my golf course but from all over the country. I'm seeing that they're really interested in what I'm writing, and they also enjoy seeing what kind of photos I'm putting on there weekly. It's just a great way to share what I do.

"My pageviews and hits have greatly increased because of Twitter. My blog post also goes to Facebook now. I joined Facebook in 2007 as a way to find a friend of mine in Finland who had lived with me as an exchange student during my junior year in high school. Then I started getting friend requests from old high-school buddies and things snowballed. Now, it's 50-50 work-related and friend-related. Social networking is not a full-time job, but once in awhile I'll want to say something and I'll put it out there if I think people can benefit from it.

"Social networking has also been a great way for me to network with my peers. This is a whole new arena that has come up in the last five years that we never had before, and now guys are talking about what they're doing and sharing ideas. I've gotten to know guys that I might not have otherwise, and now I recognize them when I see them at shows. It's kind of cool."



360-degree strategy


Justin Ruiz, CGCS, MG

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"My biggest objective in using social media is to communicate with members. I feel like even on my blog, photos and video can say so much more than just a written explanation of what's going on with the golf course. You can tell them that you're doing a project on the No. 5 hole, but show them a photo and they understand it better. If you show them a video of the project actually happening or the piece of machinery actually doing the work, it explains it in more detail so people can understand what it looks like when we're aerifying greens. When they actually see that machine going across the green and punching holes, it kind of gives them a third dimension.

"It seems like the videos and photos get commented on more than what I write. They catch members' attention more. The way people are these days, it seems like they want instant information on the go rather than sitting down to read something. They can look at a photo and quickly get the gist of what's going on out there.

"I also have the professional goal of networking. It seems like making relationships with other superintendents through blogging, Twitter and Google+ are valuable when dealing with certain issues on the golf course. You send out a Tweet on an issue and, nine times out of 10, someone Tweets back and says, hey, this is what I did to solve that issue. Plus, just seeing how other people do things by reading the blogs can really give you some great ideas. On one blog, I read how they put a wetting agent pellet inside a sprinkler head in an area that was dry, and it was just a unique idea I had never thought of. Hopefully, the things I have on my blog or my Tweets will also give someone a little nugget of information they can use."



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John E. Kaminski, Ph.D. is an assistant professor, Turfgrass Science, and director of the Golf Course Turfgrass Management Program at Penn State University. You can reach him at jek156@psu.edu.

WHAT IS SOCIAL ETIQUETTE IN SOCIAL MEDIA?

Each year, students in Penn State's golf course turfgrass management program must complete an etiquette course that culminates in a formal luncheon with faculty, staff and industry professionals. While the norms of social and dining etiquette are formalized in books such as Emily Post's "Etiquette," the uncertainty of etiquette in social media remains somewhat unclear.

At a recent conference presentation, an audience member asked about the proper use of social media and whether it was acceptable to not "follow" someone on Twitter or not accept a "friend request" on Facebook. After considering the question for a minute I realized I actually have some informal guidelines for this issue.

Some of these are hard-and-fast rules and some are just general guidelines to connect (or not connect) with others on social media.

WHY I DON'T "FOLLOW" YOU ON TWITTER.

Twitter is my favorite of all the social media sites and I often get called out for not following certain people within the turfgrass industry. I try to explain to them that just because I wasn't formally "following" them didn't mean I wasn't tracking what they were saying. I routinely check who my followers are and while I don't always follow back, nearly everyone is put on a list. I have lists for "turfgrass," "photography," "Penn State" and even lists for those who I find offensive. I put those deviants on my "Rude and Obnoxious" list. It's private so you don't know who these people are. So although I don't formally follow some of you, I often use applications like Tweetdeck to follow my "lists." Despite this organization, I still maintain some reasoning for dropping or not following you in the first place. Here are some key reasons:

- You don't have a profile picture. If

you can't take the time to upload a profile picture then you don't deserve to be followed.

- You don't tweet. There are plenty of "lurkers" out there and I encourage this, but if you don't say anything then there is no point in following you.

- You're inactive. I routinely check the activity of those that I follow and if you haven't tweeted anything in 2-3 months then you're out.

- You tweet too much all at once. I follow over 1,200 people on Twitter so this is a hard rule to break for my followers, but if I see five tweets in a row on my stream all from one person then I don't have time to deal with you.

- You've been hacked. Accounts are hacked all the time and if you send me some spam via a direct message then I am sorry to say, you have to go.

HOW TO "CONNECT" ON LINKEDIN.

This is a growing issue for me. I don't use LinkedIn all that much, but I do find it's the best professional social networking site out there. I frequently get requests on LinkedIn and many of them sit in the queue awaiting a decision. Since I find LinkedIn useful for professionals, I have rules for "connecting" with people there as well.

- You don't have a profile pic. See reasoning above for Twitter.

- You are not in the turfgrass industry. I have college friends trying to connect with me all the time. I send them a message and politely inform them that I use LinkedIn for professional connections only. I then direct them to my Facebook page.

- You don't include a personal message in your invitation to connect. While this isn't essential, if someone I don't know writes a personal message about why we should be connected I almost always accept.

- You're too commercial. If it's

clear your purpose is to sell or promote things, I will not likely follow you. We all have jobs and we all promote something, but I don't like it thrown in my face. Build yourself a "business page" and if I'm interested I will follow it.

SURE. WE CAN BE "FRIENDS" ON FACEBOOK.

I accept just about everyone on Facebook, but occasionally people do not make the cut. If you don't make the grade it's probably because I can't figure out who you are or even if you're in the turf industry at all. Put a little effort into your profile to let me know that you are or plan to be a golf course superintendent and you'll likely get in.

One rule I do have is I WILL NOT be "friends" with anyone who has an account setup as a business or entity. Businesses should have "fan pages" and not setup their personal profile account as anything other than themselves. My one exception is "Poa annua." Whoever that person is (and it's not me), I find the concept comical.

MY SOCIAL MEDIA. MY RULES.

So after reading this you may be thinking, "This guy's a real jerk." That may be the case (reread my intro in my inaugural column in the February issue), but basically I have to make some sense of all of the information being thrown at me. After all, these are MY social media profiles and MY guidelines.

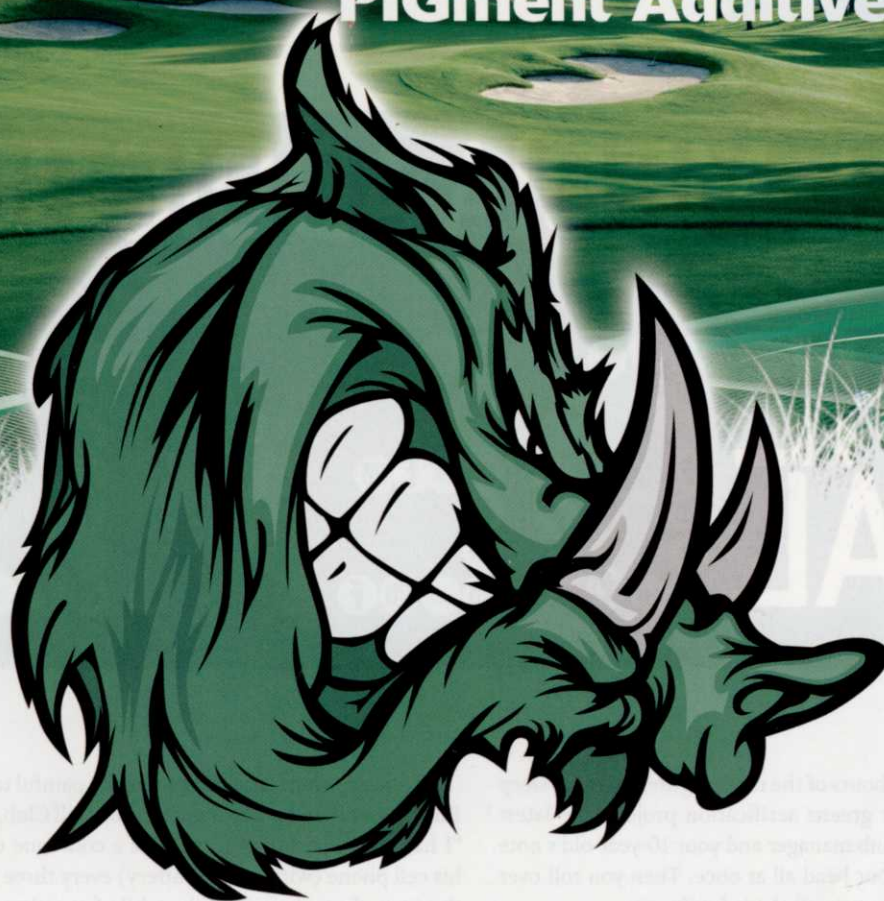
Trust me, I encourage people to "unfollow" or "unfriend" me all the time. Not everyone likes to see my tweets about "checking in" to Starbucks every morning. I accept this and encourage people to come up with their own list of rules that will bring order to their social media life. If I don't make the cut, I won't be offended.

Do you have rules of your own that I didn't mention above? If so, tweet them to me at [@JohnKaminski](https://twitter.com/JohnKaminski). **GCI**

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By Helen M. Stone



SOCIAL MEDIA ADDICTION...

THE REAL DEAL

You roll over in the wee hours of the morning and clear the sleep from your mind. Your greens aerification project, the latest complaint from your club manager and your 10-year-old's note from the teacher pop into your head all at once. Then you roll over and check your smart phone at your bedside for Tweets.

Are you a social media addict? Hard to say. First of all, you need to define the term. According to David J. Linden in "The Compass of Pleasure: How Our Brains Make Fatty Foods, Orgasm, Exercise, Marijuana, Generosity, Vodka, Learning And Gambling Feel So Good," addiction can be defined as "persistent, compulsive use in the face of increasingly negative life consequences."

Linden also cautions that addiction can become a consequence when "liking" becomes "wanting." The more an addict wants something, the less he or she actually likes it, with more and more of the addictive substance required to recapture pleasure that is never quite attained. Our brains can actually become "rewired" so that our pleasure circuit responses are permanently changed.

Every time we receive an email, Tweet or the Facebook notification ding, we get a little jolt of dopamine, the chemical in our brain that stimulates the pleasure circuit. So we keep checking our phones, tablets and computers in hopes of getting that jolt.

"I've seen others so addicted that it's painful to watch," says Dustin Riley, superintendent at Oconomowoc Golf Club, Oconomowoc, Wisc. "I had the opportunity to witness a colleague uncontrollably check his cell phone (with a dead battery) every three or four minutes over the span of two hours, all the while forgetting each time his phone was dead. He was afraid to miss something." What he was probably missing was that dopamine jolt.

When used properly, social media can be a valuable communication tool. "I use Gmail, Yahoo Mail, text messaging and LinkedIn," notes Bill Prest, head golf course superintendent at Sweetbriar Golf Club in Avon Lake, Ohio. "Times are changing and social media is part of life now, like it or not. I believe that if you want to stay current in the world you'd better embrace it, or you will fall out of touch."

Keeping in touch is exactly what drives Brian Burke, superintendent at Sycamore Creek Country Club in Springboro, Ohio. This is Burke's first year on Twitter, which is the only social media he uses. "I



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FAD OR FAD?

While the current edition of the Diagnostic and Statistical Manual of Mental Disorders might not have an entry for Facebook Addiction Disorder (FAD), few would argue that social media can become a problematic time sucker for some people. But can you get addicted?

Some estimates say that nearly half of Facebook's membership (roughly 350 million people) log on at least once a day. Think you might have a social media problem? All Facebook (www.allfacebook.com), an unofficial Facebook resource, offers up this tongue-in-cheek quiz. Answer "Yes" to one of the following and your status updates are symptomatic of FAD, and not just a fad.

- Instead of jonesing for coffee first in the morning, do you instead start your day with your laptop – or your smartphone – in order to log on to Facebook?
- Do you find yourself fantasizing about composing that next great Facebook status update every time you and your partner are in the throes of romance?
- Has your child's preschool teacher issued you a final warning because of far too many late pickups which is attributed to your inability to tear away from a Facebook page?
- Do your Facebook friends have to know every time you go to the bathroom and what you've produced?
- Is your only mode of communication with your partner or kids via Facebook?
- Have you enrolled in a costly photography course so that your Facebook pics become the talk of your circle?
- Have you resorted to paying off strangers to become your Facebook friend so that your number defies all logic?
- Do you retain the services of a private investigator whenever you fail to find a long lost friend on Facebook?
- Whenever you fight with your significant other do you feel compelled to change your Facebook relationship status?
- Did you quit your job because your employer put a halt on all Internet activities within the company?
- Has your Facebook addiction resulted in your resembling one of the "Twilight" vampires because you haven't seen the light of day since the year of the flood?
- Have you become a mute since you no longer have to use speech to communicate on Facebook?
- Have you had your eyelids Crazy Glued to remain wide open, so that sleep never sets in to interrupt your Facebook time? Or better yet, do you keep smelling salts next to you at all times as you peck away on your computer?

have about 50 people following me, mostly club members. I follow about 100 people myself; almost all are industry-related."

Burke appreciates the brevity required by Twitter. "I tend to get wordy, and with only 140 characters I can give folks the information they need and move on."

On the other hand, David Phipps, superintendent at Stone Creek Golf Club in Oregon City, Ore. confesses, "I'm afraid I use a little bit of everything. I like to use them in concert with one another, depending on what target audience I am trying to reach." Starting on Facebook looking for an old friend in Finland (who he never found), "friends were coming out from everywhere."

Phipps began writing a blog in 2009 (<http://stonecreeksuper.blogspot.com>), which offers club news, golf course environmental information, gorgeous photography and even a bit of humor. The blog now gets more than 3,000 pageviews each week and has been a promotional tool. "We have had people make it a point to stop by Stone Creek from the airport on the way through town to play Bandon Dunes on the

southern coast just because they have followed the blog." He promotes the blog with Twitterfeed.

Phipps admits that social media is easy to get caught up in.

"I've found it's best to turn off all the notifications on my Droid," he says. "It is so tempting to look, but there is always time to check back later. Nothing bothers me more than seeing people sitting around a table with their noses in their phones."

Employees are not immune to the temptations of social media, and it is useful to have a policy regarding its use. "A colleague of mine got into a bind with an employee posting on Facebook," says Mark Semm, director of agronomy at The Clubs of Cordillera Ranch in Boerne, Texas. "Even though the employee made some really negative posts, it was a corporate golf course and they couldn't let him go because it wasn't in the policies and procedures." The employee handbook at Cordillera Ranch now has a supplement outlining the use of social media by employees.

Semm himself is sold on the value of technology. "I mainly use Facebook and Twitter to commu-

"I've seen others so addicted that it's painful to watch."

— Dustin Riley,
Oconomowoc
Golf Club





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PATH TO ADDICTION

A recent study of 1,000 Americans conducted by Retrevo, a consumer electronics site, may point that we're more obsessed with social media than we think. Here are some of the study's findings. Where do you fall?

Do you check/update Facebook or Twitter first thing in the morning?



42% YES



58% NO

Do you check/update Facebook or Twitter after you go to bed?

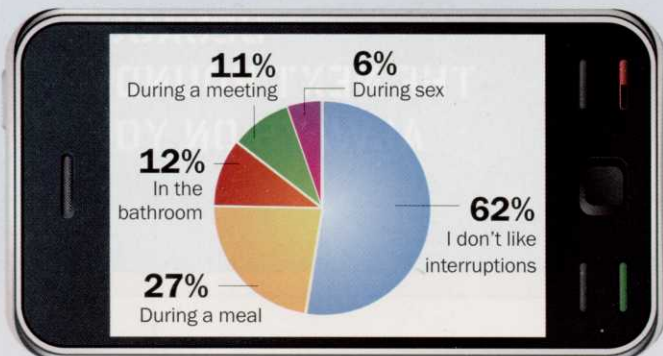


48% YES



52% NO

Can you be interrupted for an electronic message at any time?



Note: Respondents were older than 25.

nicate with our membership. It's great that they are integrated so well with my iPhone, so it's fast and easy to get the word out about course conditions, tournament preparation and other information the members need," he explains.

Semm succumbs to the temptations of social media occasionally. "There are times I could be doing something more productive, but before you know it you're sitting on the couch clicking links on Facebook and two hours are gone." He limits his "recreational" use to his home; never on the job.

Interfering with work is one way that social media addiction can manifest itself. If you or your employees are less productive, either because you are engaged on your smart phone at work or you are tired because you were up until 1 a.m. Tweeting, it might be time to re-evaluate your use.

If others comment on your constant use, and you find yourself resentful of these comments, that's another sign. Likewise if you can't resist checking on updates when you are having a face-to-face conversation with a friend or colleague.

Feeling guilty about how much time is spent Facebooking, trying to cut back on Tweet time, or trying to set limits (i.e. forcing yourself to only check in during breaks and being unable to resist) are all warning signs.

Unlike physically addictive drugs such as alcohol, tobacco or methamphetamines, social media addiction can usually be managed as long as you are aware of it. David J. Linden notes that almost all video game addicts recover without intervention.

Setting limits and sticking to them, paring down the number of networks you belong to, scheduling specific times to network and simply turning off the smart phone for a few hours each day are all recommended ways to "beat the addiction."

Social media can be a great communication avenue when used properly. But like all good things, moderation is the key to a balanced, productive online life. **GCI**

Helen M. Stone is a freelance writer and owner of Las Vegas-based Stone Peak Services, and a frequent GCI contributor.

"There are times I could be doing something more productive, but before you know it you're sitting on the couch clicking links on Facebook and two hours are gone."

— Mark Semm, The Clubs of Cordillera Ranch



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twitter

The best way to communicate

TWITTER 101

By Kyle Brown

New to the world of social media? Our guide shows superintendents how to get the most out of their feeds.

Whether you're constantly updating your feed or completely unplugged, social media like Twitter has definitely found its place on the golf course. Superintendents use it for weather and play updates for club members, as well as a connection to other turf professionals. But for all its benefits, Twitter can seem overwhelming for a beginner.

Here's how to get started using Twitter:

First, keep your team in consideration when signing up for an account. Choose a username

and password that could also be used by assistants or other crew members. Keep the username brief and easy to say when telling course members about it.

During the process of signing up, you can allow Twitter to take a peek into your online e-mail address book (such as Gmail) to send e-mail letting your contacts know you've started an account. If your account is intended to reach just other superintendents or members, you may want to skip that step.

Once the account is created, it's time to start adding content

to your feed – which is made up of the Tweets posted by people you follow, with the newest Tweets at the top. Search for people you know using the Search bar – we suggest starting with @GCIMagazine – but be sure to check the profile or a few Tweets to make certain you've found the right profile. The "@" symbol in front of a name indicates a username, which can be very different from a person's actual name. Another easy source of people to follow comes from looking through the feed of someone you already follow. If you share

interests, chances are good that person will know others you'll find interesting.

But for many superintendents, the real usefulness of the Twitter feed is in reaching colleagues and players with course updates. Once an account is created, it's time to get the word out and start gathering followers in your membership. Even with just a few in tow, make it a point to start regular updates – maybe just one each day, to get in the habit and establish a routine of posting information like weather or course conditions. The 140-character



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limit on Tweets is ideal for an immediate, short update that needs to reach your entire membership quickly.

Composing a Tweet is easy enough. The simplest form is just a straightforward phrase or so, used as a quick note. There's no required length to a Tweet, and nothing is less or more important than anything else.

But here are a few things to keep in mind:

- Want to get someone's at-

tention? Use their @username in your Tweet. Twitter collects these as "mentions" under the "Connect" tab, where users can see who's talking to them. When a @username begins the Tweet, it will only show up in feed of the person mentioned, and users who follow both accounts.

- You can attach photos, locations and links in your Tweets. Having trouble with some turf and want to ask colleagues about it? Take a photo with your smart-

phone. If you Tweet from your phone, you can upload it as well.

- When you've got several Tweets about the same topic, or are part of an event, hashtags – any phrase with a "#" in front of it – are especially useful. Whether a single word in the message, or a separate phrase at the end of a Tweet, a clicked hashtag will collect all the Tweets from about the past two weeks that use it. Many Twitter users also use hashtags to make quick afterthought jokes,

since one of the main uses of Twitter is humor.

- It's easy to ReTweet (or RT) someone else's information if you think your followers will find it useful, but don't get into the habit too much. A stream of ReTweets clutters others' feeds. But adding your own comment to a Tweet is just as easy – try a Reply to their Tweet instead, beginning with your note and then copying most of their original Tweet with "RT @username".

HOW DOES A TWITTER FEED WORK?

This is where you can find your feed: the stream of Tweets from all the people you follow.

The Connect tab shows how others are interacting with you. This is where you find when people mention or follow you.

The Discover tab lists popular stories and activity on trends.

This column is your feed, a continuously-updating collection of new Tweets from the people you follow.

Clicking a Tweet, like this one by our pal Chris Tritabaugh, will bring up options to reply to it, ReTweet it in your own feed or mark it as a favorite. You can also view the entire conversation, if a Tweet has connected messages.

Clicking here will let you see who all you're following, and who's following your feed.

Use this box to compose your Tweets, and the buttons underneath to include a photo or location – both useful tools on the course!

Twitter guesses who else you might like to follow based on who you already follow.

It's a good idea to take a look at these occasionally.

Trends are picked out by repeated mentions of hashtags, and can be listed locally or promoted by companies. Clicking one will bring up the highest-rated Tweets in that topic.

A hashtag – when a # is placed directly before a word or phrase – is used to collect Tweets on a topic, like notes on an central event or idea. It can also be used for an afterthought joke to a Tweet.

Using a @username anywhere other than the beginning of a Tweet is a "mention", and shows up in all of your followers' feeds. Your mentions are collected in the Connect tab at the top.

When someone you know wants to share a Tweet they've come across in their own feeds, they "Retweet" it. You can show or hide Retweets by people you follow.



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NEVER SURRENDER

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Arysta LifeScience

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• Web links get shortened when posted to Twitter, and most people won't click on a link without knowing where it leads. When posting a link or photo, be sure to add a description of your own, even if it's just a few words.

THE KITCHEN SINK

Of course, there's more to social media than just Twitter. Here are a few of the other networks your crew or members might use, and how useful we think they are for superintendents:

facebook

Facebook: Chances are good you already use Facebook, but have you thought about using it for course updates and helpful links to educational pages for your colleagues? Updating a status can include those, photos and videos, all of which can be easily uploaded from a smartphone. Facebook has been working hard to catch up to G+ in quick selection of who sees what content.

GCI
RATING
5/5

LinkedIn

LinkedIn: Keeping things professional is what LinkedIn is all about. It's a solid communication tool for keeping channels open for career movement and advancement, since connections will be on a professional level.

GCI
RATING
2/5

Google+: What Google+ brings to the table is an unmatched ability to select who sees what you're posting by gathering your followers into Circles. If you're posting a weather update, it would be a perfect fit for your "Members" Circle; posting some turf photos to try and diagnose dollar spot? That's more apt for your Colleagues and Turf Researchers Circles. Google+ also gives you the ability to do instantaneous group chats with friends through Google+ Hangouts.



GCI
RATING
3/5

Pinterest

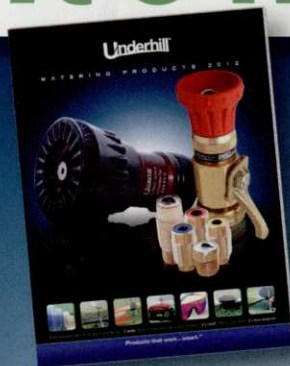
Pinterest: The newest kid in class, Pinterest has gotten a following by creating a purely visual way to collect interesting content on the Web. So it's not the right place to post your daily weather updates – but it's perfect for the before and after photos of the renovation, or shots of happy golfers at your most recent event.

GCI
RATING
3/5

Underhill®

ANNUAL 16-PAGE SPECIAL INSERT

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- NEW Products for 2012
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- Handy 16-page Reference

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When a product does its job day in and day out - it works. When it saves you time, money, or water - it's smart. When it does both - it's from Underhill.

Products that work...smart.™



NEW!

Magnum™ UltraMAX

Made in USA

PREMIUM HOSE-END NOZZLES & ACCESSORIES

Step up to the most professional nozzle you can buy - MAGNUM™ UltraMax. Firefighter quality for professionals in any field, these variable flow, multi-function nozzles are virtually indestructible and leak proof. The innovative TURBO SHIFT feature, available on both high-flow and low-flow models, provides two distinct GPM ranges for added versatility. And the outstanding distribution patterns of all MAGNUM UltraMAX nozzles make them excel in high demand areas like greens/tees, infield conditioning and equipment and stadium washdowns.

features / specifications

- Multi-Pattern Spray: Fog, Jet Stream, Fan
- Built for 1" and ¾" Hose Flow Rates (range: 7-43 GPM)
- Materials: Aircraft Aluminum, Stainless Steel, TPR Rubber



FULL THROTTLE

Single Variable Flow: Delivers steady, maximum volume fog, jet stream and fan patterns.

High Volume Model:

15-40 GPM (57-151 L/min)

Low Volume Model:

12-19 GPM (45-72 L/min)



Pistol Grip

Firefighter Grip

UltraMAX Valves

NEW!

Heavy duty ball valve, push-pull on/off control handle and exceptional build quality for long life under demanding use. Available in Firefighter Grip for two-handed operation or ergonomic Pistol Grip for comfortable, extended use. **Nozzles sold separately.**



TURBO SHIFT

Dual Variable Flow: Delivers light fog and low volume jet stream patterns before shifting to high volume jet stream and fan patterns.

High Volume Model:

Opens with 12-17 GPM (45-64 L/min)
Turbo Shifts to 20-43 GPM (76-163 L/min)

Low Volume Model:

Opens with 7-12 GPM (27-45 L/min)
Turbo Shifts to 14-17 GPM (53-64 L/min)

ordering

All flow rates based on 80 psi (5,5 bar)

Part # NG550-DFH-75	Turbo Shift 12-43 GPM (45-163 L/min) - ¾" FHT inlet
Part # NG550-DFH-10	Turbo Shift 12-43 GPM (45-163 L/min) - 1" FHT inlet
Part # NG550-DFL-75	Turbo Shift 7-17 GPM (27-64 L/min) - ¾" FHT inlet
Part # NG550-DFL-10	Turbo Shift 7-17 GPM (27-64 L/min) - 1" FHT inlet
Part # NG500-SFH-75	Full Throttle 15-40 GPM (57-151 L/min) - ¾" FHT inlet
Part # NG500-SFH-10	Full Throttle 15-40 GPM (57-151 L/min) - 1" FHT inlet
Part # NG500-SFL-75	Full Throttle 12-19 GPM (45-72 L/min) - ¾" FHT inlet
Part # NG500-SFL-10	Full Throttle 12-19 GPM (45-72 L/min) - 1" FHT inlet
Part # SVPG-75	Pistol Grip Valve - ¾" FHT inlet
Part # SVPG-10	Pistol Grip Valve - 1" FHT inlet
Part # SV-75	Firefighter Grip Valve - ¾" FHT inlet
Part # SV-10	Firefighter Grip Valve - 1" FHT inlet

Magnum™

SOLID METAL HOSE NOZZLE

Underhill™ Magnum™ contains no plastic internal parts to break, stick or wear out. Our unique ratchet mechanism easily adjusts from gentle fan to powerful jet stream and prevents over-tightening damage. Precision-machined, incredibly smooth operation and outstanding distribution patterns make it ideal for high-demand areas like greens and tees. Magnum™ is also an excellent equipment wash-down nozzle.

features

- Multi-pattern sprays - effortless control with hydraulic assist on/off
- Solid metal internal - no plastic parts to break or wear out
- Ratchet mechanism prevents over-tightening damage
- Ultra-durable construction withstands any abuse
- Fire hose quality nozzle feels great in your hands
- Beautiful, consistent spray patterns for life
- Built for 1" and ¾" flow rates

specifications

Materials: stainless steel, aluminum, TPR rubber

Flow: 37 GPM at 80 psi

Inlet: ¾" hose thread (1" brass adapter available, see Page 4)



Magnum™ nozzle pictured with 1" brass adapter (sold separately on Page 4)



solid metal internal body

Won't stick...won't break



fan



jet



soak

NEW!
Bumper Design



Perfect for tournament play, CoolPro™ puts down only enough water to cool the turf canopy. It prevents wilting while maintaining good ball speed. CoolPro is a great tool for protecting grass on hot days without damaging roots.

CoolPro™

COOL WITHOUT OVER WATERING - NO ROOT DAMAGE

A hot summer day can be murder on your greens. Use too much water and you risk damage to the roots. CoolPro™ is the first nozzle specifically designed for the single purpose of lightly misting the turf canopy to cool without over watering. And its 25 foot fogging pattern gets the job done quickly.

features

- Precision™ nozzle fogs at 70 psi to deliver a 25 ft. pattern with only 4-6 GPM
- ¾" inlet (1" brass adapter available, see Page 4)
- Ergonomic handle/valve provides easy grip and variable on/off control.
- Durable solid metal design: zinc, aircraft aluminum and stainless steel.

ordering

Part # NG450	MAGNUM™ Hose Nozzle
Part # HNC075	CoolPro™ Valve and Nozzle
Part # HN0600	CoolPro™ Nozzle only
Part # CV075L	CoolPro™ Valve only



Precision™

SOLID METAL, SPECIFIC TASK HOSE NOZZLES

Underhill Precision™ nozzles deliver millions of soft, uniform droplets to provide rapid yet surprisingly gentle water application over a huge range of flow rates. From soft watering to powerful drenching, patented Precision nozzles are designed with ideal flow rates and droplet sizes to fully irrigate without disturbing turf, dirt, seeds, etc., providing a precise solution for every hand watering application.

precision watering for specific tasks

Solid CONE Pattern



Rainbow™ TASKS: Greens, tees, seed beds, transplants, delicate landscaping (15 GPM)

Solid CONE Pattern



Rainmaker™ TASKS: Syringe and spot watering turf and hardy landscaping (23 GPM)

Solid CONE Pattern



Cloudburst™ TASKS: Dry spots, drenching, and wetting agent application (35+ GPM)

Flat FAN Pattern



Cyclone™ Pre-game skins watering, heavy watering of large areas (50+ GPM)
Note: GPM will vary with pressure at nozzle.



NEW!
Bumper Design

high-flow valves



COMPOSITE / STAINLESS STEEL:

¾" hose thread inlet/outlet, oversized handle, up to 55 GPM



SOLID BRASS: ¾" hose thread inlet/outlet, up to 50 GPM

hose adapters / quick-connectors



ordering

- | | |
|-----------------|--|
| Part # HN1500CV | Precision™ Rainbow™ Nozzle Kit |
| Part # HN2300CV | Precision™ Rainmaker™ Nozzle Kit |
| Part # HN4800CV | Precision™ Cloudburst™ Nozzle Kit |
| Part # HN5000CV | Precision™ Cyclone™ Nozzle Kit |

Nozzle Kits include brass High Flow Control Valve and ¾" MHT x 1" FHT Adapter.
To order nozzle only: remove "CV" from part number.



- | | |
|------------------|--------------------------------------|
| Part # CV075H | High-Flow ¾" Valve - Brass |
| Part # A-BV77FM | High-Flow ¾" Valve - Composite/Steel |
| Part # A-BA107FM | 1" FHT x ¾" MHT Brass Hose Adapter |
| Part # A-BA107MF | 1" MHT x ¾" FHT Brass Hose Adapter |
| Part # A-BQ7M | ¾" Quick-Connect, male end |
| Part # A-BQ7F | ¾" Quick-Connect, female end |
| Part # HN075W | replacement washer, ¾" hose |

PelletPro™

APPLICATOR GUN FOR SOLID WETTING AGENT TABLETS

Our heavy-duty surfactant applicator, high-flow valve and Precision™ Cloudburst™ nozzle combo comprises the finest wetting agent gun available. PelletPro™ accepts all wetting agent tablets and provides a high volume, yet soft spray for watering or applying surfactants to tight, hydrophobic soils.

features

- 35+ GPM to get the job done faster!
- Ultra Heavy-Duty - brass fittings, aircraft aluminum, stainless steel, and precision engineered glass-filled materials
- Patented Cloudburst™ nozzle delivers large droplets in an outstanding fan pattern
- Pellet rotation (1 RPS) evenly dissolves/applies tablets



IN-LINE APPLICATOR OPTION

Connect directly to a water source (quick coupler, HoseTap, etc.) to get the benefits of PelletPro with less handheld weight.



PelletPro™ rotates pellets at one revolution per second (RPS) to evenly dissolve/apply wetting agent



PelletPro's bowl works great as a replacement in-line filter for most spray rigs. Heavy-duty, transparent bowl shows fluid levels, and won't crack during winter storage.

Two products in 1!

PelletPro and LiquidPro's Precision™ Cloudburst™ nozzle and high-flow valve quickly assemble to create a powerful, 35+ GPM syringe nozzle.



LiquidPro™

APPLICATOR GUN FOR LIQUID WETTING AGENT

LiquidPro's chemical-resistant, UV-protected, lightweight siphon/mixing system can cover 1000 square feet in less than a minute! With unmatched speed and uniformity, you can virtually "paint" your turf with liquid wetting agent, fertilizers, and micronutrients. Adjustable metering dial offers 10 additive settings including "Water Only."

ordering

Part # A-PPWA50K	PelletPro™ Applicator Gun
Part # A-PPQ-075	PelletPro™ In-line Applicator: ¾" FHT inlet, ¾" MHT outlet
Part # A-PPQ-100	PelletPro™ In-line Applicator: 1" FHT inlet, 1" MHT outlet
Part # A-PPB	In-line Filter Bowl
Part # A-PPBG	Gasket
Part # A-LPWA50K	LiquidPro™ Applicator Gun
Part # A-LPWAB-6	6-Pack of 32 oz. Polybottles and Carrier



With the included 1" FHT x ¾" MHT brass adapter, PelletPro™ and LiquidPro™ work with both ¾" and 1" hoses.



◀ Cost

▼ ROI

Profile™

SOLID METAL GOLF SPRINKLER NOZZLES

Upgrade your Toro® or Rain Bird® sprinklers with our perfect-fit Profile™ nozzles and you will see improved results immediately. And with ultra-uniform water distribution, you can cut back watering times to **save millions** of gallons of water **every year**. Over time, since Profile solid metal nozzles resist wear and clogging, you'll enjoy these superior results for the life of your sprinkler...never needing to change out nozzles again. Nozzles so consistent, patterns so uniform... it's like rain on demand.™

Use less water, energy and manpower
and get better course playability.

"Profile nozzles lived up to our expectations and eliminated patchy dry spots and donuts. We retrofitted all our fairways and now run a more efficient irrigation program."

Logan Spurlock

Superintendent, Sherwood Country Club

"It was like putting in a new irrigation system. I became a believer overnight."

Mike Huck

Irrigation & Turfgrass Services

Former USGA Staff Agronomist and Superintendent, Murrieta Hot Springs Resort

"The Profile retrofit program has also extended the life of our Toro system while improving course appearance and playability."

Dennis Eichner

Assistant Superintendent, Silverado Resort - Napa, California

"The real power is knowing that retrofitting sprinklers with Profile nozzles can be phased in to work within a course's operating budget."

Kurt Thompson

K. Thompson and Associates, Irrigation Consultant and Trainer

Huntersville, North Carolina and Pace, Florida

Upgrade your
entire course all at once -
ZERO INTEREST FINANCING
options available now!

See how Superintendents are
upgrading their entire golf courses!
Video online now at www.underhill.us





Profile nozzles for Toro®

730 SERIES Full Circle: Front/Rear Nozzle Set

Part #	Nozzle Color # range/spreader	Toro Noz #
T730-3313	Brown 33 / Gray 13	33
T730-3413	Blue 34 / Gray 13	34
T730-3515	Violet 35 / Red 15	---
T730-3515L (50 psi)	Green 35 / Red 15*	35
T730-3615	Red 36 / Red 15*	36
T730-3617	Red 36 / Lavender 17	



* For square spacing, specify #17 (lavender) nozzle with the #35 and #36 range nozzles



Profile nozzles are so consistent, with distribution patterns so uniform... it's like rain on demand.™



760 and 860 SERIES Part Circle: Midrange/Close-in Nozzle Set

Part #	Nozzle Color: midrange/close-in
T760-GY	Gray / Yellow
T860-GY	Gray / Yellow



830, 834S, DT SERIES Full Circle: Midrange/Close-in Nozzle Set

Part #	Nozzle Color: midrange / close-in	Toro Series
T830-GY	Gray / Yellow	830
T834-GY	Gray / Yellow	834S
TDT100-GY	Gray / Yellow	DT 34/35



835S SERIES Full Circle: Midrange/Close-in Nozzle Set

Part #	Nozzle Color: midrange / close-in
T835S-WP	White / Plug

630 SERIES CALL FOR AVAILABILITY

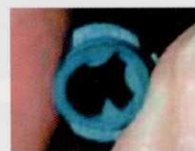


Profile nozzles for Rain Bird®

EAGLE 700 SERIES

Full Circle: Midrange/Close-in Nozzles

Part #	Nozzle Color midrange / close-in	Rain Bird Nozzle #s
R70028-RG	Blue / Gray	28
R70032-RG	Red / Gray	32
R7003640-GG	Blue / Gray	36/40 and larger



Look familiar? Poor performing Eagle 700 sprinklers are often the result of clogged and worn nozzles. Profile nozzles' solid metal construction and nozzle shape were scientifically designed to solve this exact problem. They simply don't wear out. And they don't clog. Upgrade your old golf sprinklers to better than OEM with Profile!



670 SERIES Full Circle: Rear Nozzles

Part #	Nozzle Color: midrange / close-in
T670-BY	Black / Yellow



690 SERIES Full Circle: Rear Nozzle

Part #	Nozzle Color: spreader
T690-G	Gray



750 SERIES Full Circle: Front/Rear Nozzle Set

Part #	Nozzle Color #range / spreader	Toro Nozzle #s
T750-5617	Red 56 / Lavender 17	56
T750-5717	Gray 57 / Lavender 17	57



780, 854S, DT SERIES Midrange/Close-in Nozzle Set

Part Circle (780), Full Circle (854S), Part/Full Circle (DT 54/55)	Part #	Nozzle Color: midrange / close-in	Toro Series
	T780-BY	Black / Yellow	780
	T854-BY	Black / Yellow	854S
	TDT150-BY	Black / Yellow	DT 54/55



855S SERIES Full Circle: Midrange/Close-in Nozzle Set

Part #	Nozzle Color: midrange / close-in
T855S-PP	Pink / Plug

650 SERIES CALL FOR AVAILABILITY



900 EAGLE SERIES

Full Circle: Close-in Nozzle

Part #	Nozzle Color
R900-M	Maroon



91 SERIES BRASS IMPACTS

Full Circle: Close-in Nozzle

Part #	Nozzle Color
R91-G	Gray



51 SERIES BRASS IMPACTS

Full Circle: Front/Rear Nozzles

Part #	Nozzle Color # range / spreader	Rain Bird Nozzle #s
R51-1411.5	White 14 / Gray 11.5	14 / 11.5
R51-1611.5	Blue 16 / Gray 11.5	16 / 11.5
R51-1811.5	Yellow 18 / Gray 11.5	18 / 11.5
R51-2011.5	Red 20 / Gray 11.5	20 / 11.5
R51-2213	Green 22 / Black 13	22 / 13
R51-2413	Black 24 / Black 13	24 / 13

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AuditMaster™

EXPERT SPRINKLER PERFORMANCE TESTING KITS

Increasing watering times to compensate for poorly performing sprinklers wastes a lot of water. Accurately measuring sprinkler application rates with Underhill™ AuditMaster™ helps maximize water savings.



4"x 5" Marking flags on 21" wire (50-pack) are available in 6 colors.



AuditMaster Combo ST/LT Kit pictured, includes large CatchCanPro cups (blue) and CatchCanPro Mini cups (30 each).

AuditMaster ST Kit excludes the large CatchCanPro cups. This kit is ideal for **SMALL TURF** audits.

AuditMaster LT Kit excludes the CatchCanPro Mini cups, 3/4" Hose Bib and Gauge and the Spray Head Tester w/Gauge. This kit is optimized for golf courses, sports fields and other **LARGE TURF** audits.

CatchCan Pro™

features

- Self standing - easily anchors into turf, even on slopes
- Measures sprinkler application in inches or centimeters
- Unique design allows for shorter duration test
- Made of durable polypropylene engineered plastic
- Can be stacked for easy storage
- Each 10 pack kit comes with instructions



CatchCan Pro (CCPK-10) for **LARGE TURF** audits. Measures ml, cm, inches.

CatchCan Pro Mini (CCPMK-10) for **SMALL TURF** audits. Measures inches.

ordering

Part # AUD-ST	AuditMaster ST Kit
Part # AUD-LT	AuditMaster LT Kit
Part # AUD-STLT	AuditMaster Combo ST/LT Kit
Part # SALESPRO4	AuditMaster Wheeled Carry Case
Part # A-STW	Stop Watch
Part # A-WIND	Anemometer (Wind Gauge)
Part # CCPK-10	CatchCan Pro (Blue) - 10 Pack
Part # CCPMK-10	CatchCan Pro Mini - 10 Pack

Part # MT-100	Fiberglass Measuring Tape: 100'
Part # A-FLAG	Marking Flags: Yellow - 50 Pack
Part # A-FLAG-B	Marking Flags: Blue - 50 Pack
Part # A-FLAG-O	Marking Flags: Orange - 50 Pack
Part # A-FLAG-P	Marking Flags: Pink - 50 Pack
Part # A-FLAG-R	Marking Flags: Red - 50 Pack
Part # A-FLAG-W	Marking Flags: White - 50 Pack

TurfSpy™

EARLY STRESS DETECTION GLASSES

Disease, drought and weed invasion are plant and turf killers. But by the time you see them it can be too late. TurfSpy™ glasses, with stress detection technology developed by NASA, lets you “see into the future” to identify problems 2-10 days before they are visible to your naked eye. Keep your turf and vegetation healthy BEFORE serious problems arise.



fusarium patch

pythium blight

yellow patch
(rhizoctonia)

brown patch

anthracnose

get a jump on **broken**
or **poor-performing**
sprinklers

highly efficient **spot**
watering saves time
and labor costs

superior **weed location**
and spraying saves
time and money

features

- Shatterproof/polycarbonate stress detection lens (ANSI approved safety lens)
- Wrap-around lens limits ambient light for optimal detection
- Sports frame with adjustable ear piece
- Lightweight case included

HOW IT WORKS

Dying vegetation absorbs and reflects sunlight differently than when its healthy. The earliest signals occur at the outer limits of the human visual spectrum, and are rendered invisible compared to the predominant middle wavelengths. TurfSpy™ filters the light in the center so that fringe spectra, which show early plant stress, become visible.



ordering

Part # NG655-01 TurfSpy™ Glasses and Deluxe Case

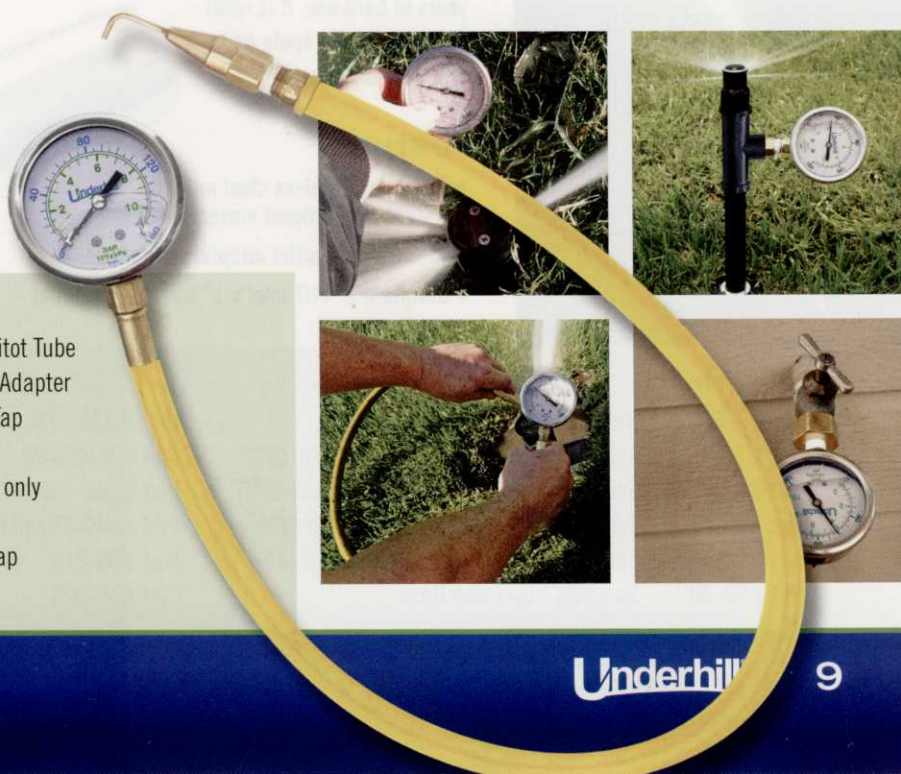
HeadChecker™

NOZZLE DISCHARGE PRESSURE GAUGE

Use this liquid-filled 160 psi gauge with 30" flex hose and solid brass Pitot tube, hose bib, or spray head adapter to measure water pressure at discharge points.

ordering

- | | |
|-------------------|---|
| Part # A-PHG-160K | HeadChecker™ gauge, 30" Flex Hose, Pitot Tube |
| Part # A-SHG-160K | HeadChecker™ gauge with Spray Head Adapter |
| Part # A-HBG-160K | HeadChecker™ with 3/4" POC Hose Bib Tap |
| Part # A-HCGPK | HeadChecker™ gauge and Pitot tube |
| Part # A-PG160L | HeadChecker™ 160 psi pressure gauge only |
| Part # A-HCP | Pitot tube only |
| Part # A-HBT | 3/4" Hose Thread x 1/4" Brass Hose Bib Tap |
| Part # A-SHA | Spray Head Adapter |





SpotShot™

LOW VOLUME PORTABLE SPRINKLER KIT

SpotShot™ is an expandable sprinkler system kit ideal for turf areas requiring low volume watering for extended periods. Connect the Starter Kit to a quick coupler (or golf sprinkler with the HoseTap™ on page 12) and connect Add-On Kits for larger area needs.



Starter Kit includes 20' of 1/2" flexible PVC tubing with connection fittings, pressure regulator, sprinkler base and low volume rotating sprinkler (20 ft. radius / 0.65 GPM - 0.16 in./hr.)



Add-On Kit includes 20' of 1/2" flexible PVC tubing with connection fittings, sprinkler base and low volume rotating sprinkler (20 ft. radius / 0.65 GPM - 0.16 in./hr.)



Micro-Sprinkler Options

- 20 ft. radius / 0.65 GPM (0.16 in./hr.)
- 20 ft. radius / 1.2 GPM - (0.26 in./hr.)



ideal for

- Leaching salts on greens
- Targeting hot spots on fairways, roughs, etc.
- Mound watering
- New seed grown in
- Other low volume watering



RollerPro™

PORTABLE SPRINKLER BASE

The 22" wide stainless steel roller of RollerPro™ provides a stable field position for supplemental watering. Designed for years of hard use, it is ideal for watering dry spots and newly seeded areas.

features

- 22" wide stainless steel roller is weighted to prevent movement during use.
- 3/4" inlet and outlet adapters included
- Standard 1" FHT inlet x 1" female NPT outlet



RollerPro™ works with both 1" and 3/4" hoses and sprinklers using the included adapters. Sprinklers sold separately on page 12-13.

ordering

Part # A-RP221	RollerPro™
Part # SS-SK	SpotShot™ Starter Kit (20 ft. rad, 0.65 GPM)
Part # SS-AOK	SpotShot™ Add-on Kit (20 ft. rad, 0.65 GPM)
Part # SS-SK26	SpotShot™ Starter Kit (20 ft. rad, 1.2 GPM)
Part # SS-AOK26	SpotShot™ Add-on Kit (20 ft. rad, 1.2 GPM)
Part # SS-SB	SpotShot™ Sprinkler Base

Part # R75-HFM-40	Pressure Regulator (40 psi)
Part # TP-050-20	20' Coil of 1/2" PVC, SuperFlex Pipe
Part # S40-050-HFS	3/4" Hose Thread Female x Male, Slip Fitting
Part # S40-050-HMS	3/4" Hose Thread Male x Female, Slip Fitting
Part # SS-S16	Micro-sprinkler (20 ft. rad, 0.65 GPM - 0.16 in/hr)
Part # SS-S26	Micro-sprinkler (20 ft. rad, 1.2 GPM - 0.26 in/hr)

Tracker™

PORTABLE IRRIGATION MACHINE

The Tracker™ offers an economical solution for supplementing seasonal watering needs of ¼ acre to 2 acre areas. It's also ideal for irrigating athletic fields, cemeteries, golf course roughs, or other large areas where an underground system is impractical. Built to last with precision German engineering and high quality materials, this portable powerhouse can irrigate an entire football field in just two passes.

specifications

- Weight: 58 lbs.
- Size: Length 33", Width 22", Height 22"
- Materials: Aluminum, Brass, ABS
- Minimum Water Pressure: 50 psi
- Hose Required: 1"
- Includes 1" brass quick-connect adapter



ordering

Part # T-400 Tracker™ Portable Irrigation Machine

NEW!

Nozzle Locker™ Kits

**STOP LOSING
YOUR NOZZLES!**



THE VERY BEST NOZZLES - KEEP THEM SECURE (and handy)

- Entire Precision™ nozzle series (Rainbow™, Rainmaker™, Cloudburst™ and Cyclone™)
- Solid Brass High-Flow Valve
- CoolPro™ with Precision™ fogging nozzle
- Your choice of MAGNUM™ multi-pattern nozzle (original, UltraMAX Turbo Shift, or UltraMAX Full Throttle)
- Unbreakable, lockable, corrosion-proof case to keep these tools safe and secure



ordering

- Part # HP-K1 NozzleLocker™ with ¾" Magnum (yellow) nozzle
 Part # HP-K2 NozzleLocker™ with ¾" Magnum UltraMAX Full Throttle nozzle (high flow)
 Part # HP-K3 NozzleLocker™ with ¾" Magnum UltraMAX Turbo Shift nozzle (high flow)
 Part # HP-K4 NozzleLocker™ with 1" Magnum UltraMAX Full Throttle nozzle (high flow)
 Part # HP-K5 NozzleLocker™ with 1" Magnum UltraMAX Turbo Shift nozzle (high flow)



Quick Coupler Valves & Keys

SOLID BRASS, SINGLE SLOT/LUG ESSENTIALS

Built to last, Underhill valves and keys are constructed of solid red brass and stainless steel. Valves incorporate rugged one-piece design.



Valve: Part # QV-075R
($\frac{3}{4}$ " FPT inlet)

Key: Part # QK-075
($\frac{3}{4}$ " MPT x $\frac{1}{2}$ " FPT outlet)

Valve: Part # QV-100R
(1" FPT inlet)

Key: Part # QK-100
(1" MPT x $\frac{3}{4}$ " FPT outlet)

Valve: Part # QV-150R
($1\frac{1}{2}$ " FPT inlet)

Key: Part # QK-150
($1\frac{1}{2}$ " MPT x $1\frac{1}{4}$ " FPT outlet)

hose swivels

Part # HS-075 $\frac{3}{4}$ " FPT x $\frac{3}{4}$ " MHT outlet
Part # HS-100 1" FPT x $\frac{3}{4}$ " MHT outlet
Part # HS-101 1" FPT x 1" MHT outlet
Part # HS-151 $1\frac{1}{2}$ " FPT x 1" MHT outlet



The Claw™ pictured with 1" quick coupler, key and hose swivel.

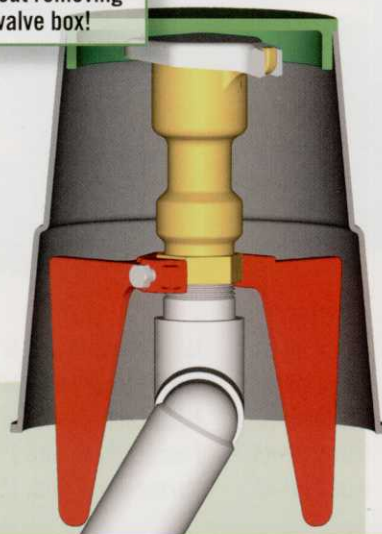
The Claw™

QUICK COUPLER MOTION RESTRAINT

When quick coupler valves become unscrewed from swing joints, it's more than just a hassle - it can be dangerous. The Claw™, new from Underhill, offers a simple solution. Embedded in the soil below the quick coupler, and then securely attached to its base, The Claw provides significant resistance to rotational, vertical and horizontal motion, preventing the valve from moving. Made from high strength ductile iron, this compact anchor attaches easily with a single steel bolt.

EASY RETROFIT!

Installs without removing valve or valve box!



ordering

Part # QCA-075100 The Claw™ for $\frac{3}{4}$ " and 1" valves
Part # QCA-150 The Claw™ for $1\frac{1}{2}$ " valves

Impact Sprinklers

SOLID BRASS, ULTRA-RELIABLE WORKHORSES

For reliable, trouble-free, high-performance year after year, you just can't beat our brass impact sprinklers. Available in full circle and full/part circle, in inlet sizes of $\frac{3}{4}$ ", 1" and $1\frac{1}{4}$ ".

features

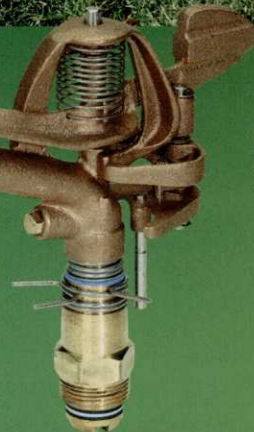
- Solid brass construction
- Stainless steel drive spring
- Bearing assembly hood for longer wear life
- Chemical resistant bearing seals
- Solid brass nozzle



$\frac{3}{4}$ "
Flow: 5-15 GPM
Spacing: 40-60 ft.



1"
Flow: 15-45 GPM
Spacing: 50-80 ft.



$1\frac{1}{4}$ "
Flow: 25-120 GPM
Spacing: 75-110 ft.

Performance data shown at 80 psi. GPM and radius will vary with pressure at sprinkler

ordering

		GPM	Radius (ft.)
Part # SI075F	$\frac{3}{4}$ " MPT Full Circle	13	57
Part # SI075P	$\frac{3}{4}$ " MPT Part/Full Circle	11	48
Part # SI100F	1" MPT Full Circle	23	71
Part # SI100P	1" MPT Part/Full Circle	23	71
Part # SI125F	$1\frac{1}{4}$ " MPT Full Circle	51	96
Part # SI125P	$1\frac{1}{4}$ " MPT Part/Full Circle	54	78

HoseTap™

SOLID METAL HOSE ADAPTER

HoseTap™ gives you a hose connection anywhere you have a Toro® or Rain Bird® electric, valve-in-head sprinkler... a fast connection when quick-couplers or hose bibs are not available. Includes aircraft aluminum body (won't break or wear out like plastic) anodized with sprinkler manufacturer color, o-ring, riser, 1" brass swivel and $\frac{3}{4}$ " adapter. Also available without brass swivel/adapter.

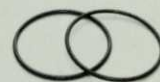


ordering

Part # HN-T100S	HoseTap™ for Toro® 1" inlet golf sprinklers
Part # HN-T150S	HoseTap™ for Toro® $1\frac{1}{2}$ " inlet golf sprinklers
Part # HN-R125S	HoseTap™ for Rain Bird® Eagle 700 Series sprinklers
Part # HN-R150S	HoseTap™ for Rain Bird® Eagle 900 Series sprinklers
Includes 1" brass swivel and $\frac{3}{4}$ " adapter. Add "B" for BSP thread.	
To order without brass swivel: Remove "S" from part number.	

REPLACEMENT O-RINGS

Part # OR-100	Fits Toro® 1" inlet and Rain Bird® Eagle 700 Series golf sprinklers / HoseTap
Part # OR-150	Fits Toro® $1\frac{1}{2}$ " inlet golf sprinklers / HoseTap
Part # OR-150R	Fits Rain Bird® $1\frac{1}{2}$ " inlet golf sprinklers / HoseTap



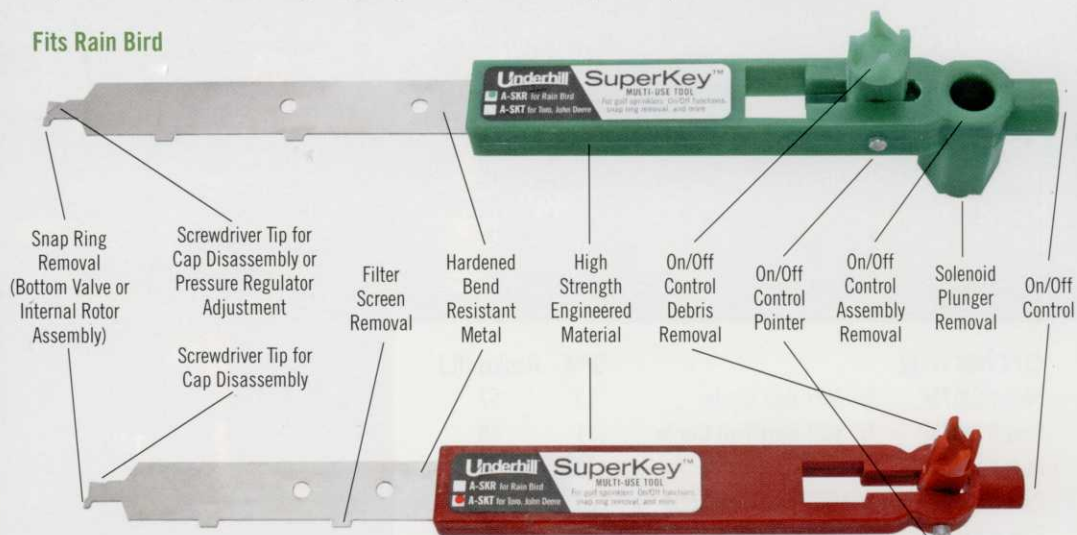


SuperKey™

MULTI-PURPOSE GOLF SPRINKLER TOOL

This ultimate multi-purpose tool designed for Rain Bird®, Toro® and John Deere® golf sprinklers is a must have. Made of stainless steel and composite material, it effortlessly turns Electric-Valve-In-Heads on and off, removes internal assembly snap rings and performs many other sprinkler maintenance chores.

Fits Rain Bird



Fits Toro, John Deere

ordering

- | | |
|--------------|---|
| Part # A-SKR | SuperKey™ for Rain Bird® golf sprinklers |
| Part # A-SKT | SuperKey™ for Toro® and John Deere® golf sprinklers |

VersaLid™

VALVE BOX UNIVERSAL REPLACEMENT LID

VersaLid™ is the easy solution for broken or missing valve box lids. No need to guess what brand a buried box is or even worse - dig it up to find out - VersaLid's locking system fits all 6"-7" round valve boxes.

features

- Fits all 6"-7" round boxes
- Universal fit
- Greater top-load strength and more UV-resistant than structural foam lids
- Purple Lid available for non-potable/reclaimed water

STRONGER! BETTER FIT!
than original equipment lids



Splice Kit

3M DIRECT BURY SPLICE KIT

Each kit includes one wire connector which can accommodate wire sizes from 18-10 gauge and a waterproof gel case. Excellent for golf, commercial and residential applications.

ordering

- | | |
|---------------|--------------------------------------|
| Part # VL-6 | Green VersaLid™ 6"-7" valve box lid |
| Part # VL-6P | Purple VersaLid™ 6"-7" valve box lid |
| Part # DBRY-4 | Direct Bury Splice Kit - 4 Pack |

Gulp™ UltraMAX

SUPER HIGH-CAPACITY WATER REMOVAL SUCTION PUMPS

Whether you need to remove water from sprinklers and valve boxes or other areas or devices, UltraMax Series Pumps are the ideal tools for the job...huge capacities and the smoothest pumps you will ever use as well.

special features

- Super Smooth Pumping Action
- Extra Volume Capacity
- Strong Aluminum Pump Shaft
- Heavy-Duty Clear Tube Material
- Self Priming

also great for



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- 12" pump chamber

BIG GULP ULTRA MAX

- 12+ gallons per minute!
- 36" clear pump chamber
- 72" or 36" outlet hose

GULP ULTRA MAX

- 8 gallons per minute!
- 14" clear pump chamber
- 18" outlet hose

Aluminum shaft

Aluminum shaft

Easy, push-button cleaning system

Gulp UltraMAX and BigGulp UltraMAX include debris filter attachment for very dirty water.

ordering

Part # A-G12-C	Gulp™ UltraMax
Part # A-G3636CK	BigGulp™ UltraMax w/ 36" outlet hose
Part # A-G3672CK	BigGulp™ UltraMax w/ 72" outlet hose
Part # A-G12S-C	Gulp™ Syringe Ultra
Part # A-GTUB-C	100 ft. outlet hose



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FACEBOOK, UPDATED!

As of March 30, the business pages on the most popular social networking site on the planet took on a major change. Facebook forced implementation of the "Timeline" profile format for all business pages – and that includes those for golf courses.

The change might seem drastic, but it actually presents some great opportunities for golf courses to connect in completely new ways with players and colleagues. Here are some tips for handling the switch like a pro.

BE VISUAL. Taking a cue from other social media sites like Pinterest, Facebook is starting to skew for a more visual layout. The Timeline format organizes content not by its type but by its importance and timeliness. Want to share photos of the course? Upload a shot from your phone and watch it get top placement in your feed rather than being tucked away in an album. Keep that in mind when logging photos for a proposed upgrade project that needs to be sold to your members.

The new "cover image" gives you another opportunity to use a beauty shot from your course to really show off the turf you work so hard to manage. Make the first thing the visitor sees just as memorable as the course itself.

BE IN CONTROL. The new "Admin panel" not only collects all your notifications and alerts to one place, but gives you enhanced control of your entire page. Take a look at who's recently liked elements on your page, and check out the statistics of what's got people talking about them. Use your Activity Log to manage each interaction on your page.

Use the bar beneath your cover image to show off important photos, links or apps your members might find useful. Individual posts can be managed to span the width of the Timeline for more prominence, or can even be permanently "pinned" to the top for more visibility.

BE A PERSON. Facebook is allowing customers to offer reviews of companies on their own pages, which can be shared with others. It may be impossible for businesses to remove unfavorable customer reviews, but in trade,

businesses are finally able to interact with users via private messages. Located in the Admin panel, new private messages will give you the chance to make things right with a dissatisfied member or discuss a problem on the course without airing the whole conversation on the course's Wall. **GCI**



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

WHO, WHAT, WHO AND WHY?

You've probably heard of "Who, What and Why," but when contemplating irrigation system improvements it should be Who, What, Who and Why?

WHO WILL DESIGN YOUR IMPROVEMENTS?

Will it be an irrigation consultant, the distributor, the irrigation contractor, yourself or a club member who's a retired engineer? Costs, comfort level, independence and even proximity will all factor into the decision.

You must feel comfortable with your designer. You want to get along with him/her because you'll be working closely for what could be several years. Equipment distributors may have design services and can provide a design representing each manufacturer's equipment. If you go this route, will you be able to tell the differences between the distributors' designs? If the improvements are not too extensive, then can you determine what is needed on your own? The designer should not only be experienced with golf course irrigation design, but have experience designing with the product you want. At a minimum, make sure there are detailed plans, product specifications and details. A set of installation and behavior rules, payment schedule and construction schedule also make a smoother project. If using an outsider, ask their references if they came in on budget.

WHAT EQUIPMENT WILL YOU USE? This includes which manufacturers, sprinklers, controllers and valves (i.e. Hunter, Rain Bird, Toro, etc.), and should include less obvious components such as pipe, fittings, wire and valve boxes. These

days there are many important choices for irrigation systems – HDPE versus PVC, decoder versus field controllers, hard wire versus wireless communication – and some of them should be made early in the design process.

When it comes to hard goods, the products have many similarities and differences. Do your homework. Research which product works best for your course and, more importantly, your irrigation and water management philosophy. The improvements should match your style. If you are dealing with a large project – such as a full-replacement system – then consider

Many of the larger irrigation installers have several crews. Are you getting the "A" team or the "F" team?

visiting the manufacturers' factories to get a feel for the equipment's design and quality. The "what" should also include pipe-pressure ratings, fitting types, isolation, quick couplers, individual or blocked control and blocked sprinklers or valve-in-head everywhere.

WHO INSTALLS IT? Is it an irrigation contractor, a builder, yourself or the landscaper who tends the clubhouse grounds? The installer must be experienced in golf course irrigation system installations, not home lawns or athletic fields. The guy who installed the president's sister's system won't cut it.

Golf irrigation is different than other types of irrigation. The pipe is bigger,

different material fittings, there is lots of wire and proper grounding is imperative. Experience, financial viability, proper machinery and personality are characteristics that enter into the installer selection process. Consider the foreman who will be overseeing the crew. Many of the larger irrigation installers have several crews. Are you getting the "A" team or the "F" team? Along those lines, how deep is the crew's experience? If the foreman takes a day off, is a qualified supervisor still on site? Get a reference list and call them. Talk to other courses the contractor has done, but may not be on the reference list. Visit courses where the contractor is working and look at how the irrigation system is being installed.

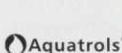
WHY THE BACK-UP FOR THE THREE PREVIOUS DECISIONS AND WHY ARE YOU UNDERTAKING THE IMPROVEMENTS IN THE FIRST PLACE?

With the economy as it is and a large amount of money that will be spent for irrigation improvements it is important to back up your decisions. Document your due diligence for a designer, equipment supplier and installer. Have reference lists. Have notes on talking to people. Have pictures of site visits and write down your thinking process. Have a budget that includes all aspects of the project. Have all your bid documents and proposals organized and put all the numbers in a spreadsheet. You may not need it, but if someone asks you how and why you picked the who or a what, you want to easily explain why and be able to convince the board, owner or whoever that it was the best choice based on all the factors of experience, cost and schedule. GCI



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A milder and drier-than-normal winter is forcing superintendents to evaluate their soil moisture levels to make sure they're where they need to be heading into the growing season.

By Carmen Magro

Soil water content affects everything. Neglect it for a moment in time and you will pay the price in reduced turf performance, poor course conditioning and member dissatisfaction. The winter's warm weather and dry conditions in many parts of the country should be important to you. The clock is ticking early for many courses and operations. It is hard, however, to only focus on water without understanding that turf is dynamically adapting and responding to its surrounding conditions.

One of the most common mistakes in turfgrass and course management is the failure to remember that turfgrass is a living, breathing entity. It is prompted to change just as you and I are, as we are subjected to changes and responses every minute of every day. In other words, if nature starts the clock early, your course can't wait until the calendar says it's time to get moving. This includes time to fertilize, time to groom, time to irrigate and time to do whatever it takes to meet the needs of the system. For those in regions of high disease incidence in the summer months, this winter's lack of knock-down of pathogenic fungi due to warmer-than-normal conditions may lead to a very long season of stress. If water management is not optimal, things can get exponentially worse as the season matures. Nature's way of curbing many ailments in our pest management programs is not to be taken for granted, and for the most part it has been absent in recent months for many.

In early turfgrass courses and plant biology classes we learned that there are life cycles of the turf, important ones that take place throughout the year. Whether we are working with cool or warm season grasses, it is important to remember these processes thoroughly. Cool season turf, which is tolerant of cool temperatures and continues to have

ALL DRIE





D UP?

Watching your water

Ask any superintendent this year how their course held up over winter and they'll probably say, "What winter?" Warmer-than-normal temperatures and little snow has forced them to think a little harder about irrigation.

Charles "Bud" White, director of the USGA's drought-stricken Mid-Continent Region, says he has been encouraged by a few rains in the beginning of the year that brought lake levels up.

"We're suggesting that superintendents not scalp their fairways, which is the normal practice. That could be stressful on it, and if the turf is still in a drought situation, that could be very stressful."

White is also recommending doing some slicing or needle tining in fairways or tees so the water gets the maximum chance for absorption.

Soil moisture is going to be a real issue in the North, says irrigation consultant Brian Vinchesi, due to a very dry winter with hardly any snowfall.

"We didn't get any snow, but we didn't get any rain, either," says Vinchesi.

Vinchesi says superintendents should be concerned with shallow wells. He believes groundwater has taken a little bit of a hit this year.

"I think superintendents need to be a little more diligent about this, and certainly if it stays dry, they need to really pay attention to the water supply," he says.

Superintendents probably have a lot less moisture than they're used to at this time of year, says Vinchesi. They'll

(continued on page 68)

WHEN YOU NEED MUSCLE IN YOUR TANK



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WATER MANAGEMENT

root stimulation even down to the freezing point in the soil is highly dependent on its ability to build storage carbohydrates and key proteins in the root system, some of which only develop in a true dormant season with the right nutrients in place. When the plant is growing, whether it is root stimulation, lateral growth or vertical stimulation, it needs a soil solution with key elements in balance designed to meet those needs in the turf. While some nutrients are not as efficient in cooler soils, the above-ground warm weather stimulation is agnostic to that fact, and we need to recognize those needs or it will lead to less than desirable conditions this season. We may forget about what's going to happen later by the superficial greening effect we see on the surface due to a lack of dormancy, the breaking of warm season dormancy earlier than expected or the desire to open courses early as a result of the higher-than-average temperatures many are receiving.



Turfgrass won't wait for your schedule to start greening up, says Carmen Magro.

These internal compounds that the plant produces and depends upon are critical to helping the turf survive the stressful months ahead as the sun raises high in the sky and the weather extremes present havoc on our turf. In a world where efficiency is needed by everyone that irrigates, the fact that the turf needs water earlier this year does not mean we are inefficient or wasteful if we turn on the system days or weeks ahead of schedule. The economic downplay of a system that fails in a few months could lead to far worse results, increased pesticide or curative procedures and unhappy members and guests. The goal should always be to meet the needs of the turf by providing just enough soil solution and nutrient balance necessary so that we meet our desired conditions on the course. The latter is the factor for which you will be judged.

For warm season grasses in areas of higher-than-normal temperatures this year, you may have struggled with some cool season over-seeded areas as the warm season grasses have competed earlier than usual. For those of you that painted, you may or may not see a difference until the natural grass starts growing through. Either way, meeting those needs through careful irrigation applications and nutritional balancing will allow your turf to mature rapidly, reduce the incidence of dead spot and delayed turf development and enable you to perform operations getting things in high gear at no turf loss expense.

If on the other hand we don't identify these early needs and we only implement cultural practices to stimulate turf response while neglecting

“Looking at the surface and subsurface conditions, it can sometimes be deceptive because you could have three to four inches of moist soil over dry soil. Growth starts out well, then depletes the soil moisture pretty quickly.” — Robert Carrow, University of Georgia

The screenshot shows a terminal window with the title "5.05. Dmesg, 1.1-10.10.2009. www...". The command "Sensors" has been executed, resulting in the following output:

```

Sensors
- Absolute, not relative, sensing

```

Below the text, a photograph of a USB sensor is displayed. The sensor has a white plastic body with a green band and two metal pins extending from the bottom. A black cable is attached to the top of the sensor.

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Through accurate, real-time measurements of moisture, salinity and temperature, the Rain Bird® ISS can help save time, water and other inputs, while maximizing turf health. The easy-to-install ISS can be used as a standalone system or can be seamlessly integrated with a Rain Bird central control. The ISS can even automate irrigation and adjust run times based on sensor feedback. Monitoring your course's hotspots without breaking into a sweat. That's The Intelligent Use of Water.™

irrigation and nutritional needs, we will likely not be happy with our results.

Having measured soil and water relationships throughout the world in all kinds of climates, soils and water qualities, I can assure you that soil solution management means everything to your success. Some of you don't know it, some take it for granted and some simply ignore it particularly in regions of

high rainfall. There are correlations between plants that we can all learn from observing. For instance, working with farmers on the development of a program that allows for the most succulent, sugar-rich fruit is directly related to soil solution management. Force a soil to be just too wet and the plant goes into survival mode, reducing sugar production in the fruit and greatly reducing crop yield.



Soil can seem moist at the surface, but be dry just a few inches beneath.

Maintaining too much leaf wetness leads to diseases which again reduce crop quality and yield (sound familiar?). Maintain the soil too dry and the plant goes into survival mode, many times producing seed and many flowers at the expense of producing no fruit. In turf, particularly in regions where we manage mixed stands, seed heads are a nemesis. It is highly possible that this year, due to the early seasonal growth and lack of a true dormant season that we may see an abundance of seed development that not only comes earlier but lasts longer into the season. Reduce the growth stress on your turf by managing your soil solution and nutritional balancing optimally, and you will reduce the stresses that cause undesirable effects in your turf. In warm season grasses where we see a sudden drop in nutritional levels typically in mid to late spring, we may see this earlier this year. Turf does not care about a calendar, and if those desired levels drop or are negligent, our turf will decline, in many places earlier than usual. On the flipside, recognizing the needs of the turf earlier, managing our soil solution through irrigation and necessary cultural practices and beginning our fertility program, particularly our foliar and liquid program, can increase the growth vitality of our turf and take advantage of early growing conditions. Hopefully many have recognized this and got the ball moving early in preparation for the remainder of the year.

As a golf course superintendent, I remember training my irrigation crew in the art of syringing properly. Say what you want about whether it is beneficial or not, but the fact is that doing it correctly and knowing what your soil moisture levels are in the entire soil profile will be the difference between satisfactory and non-satisfactory results at



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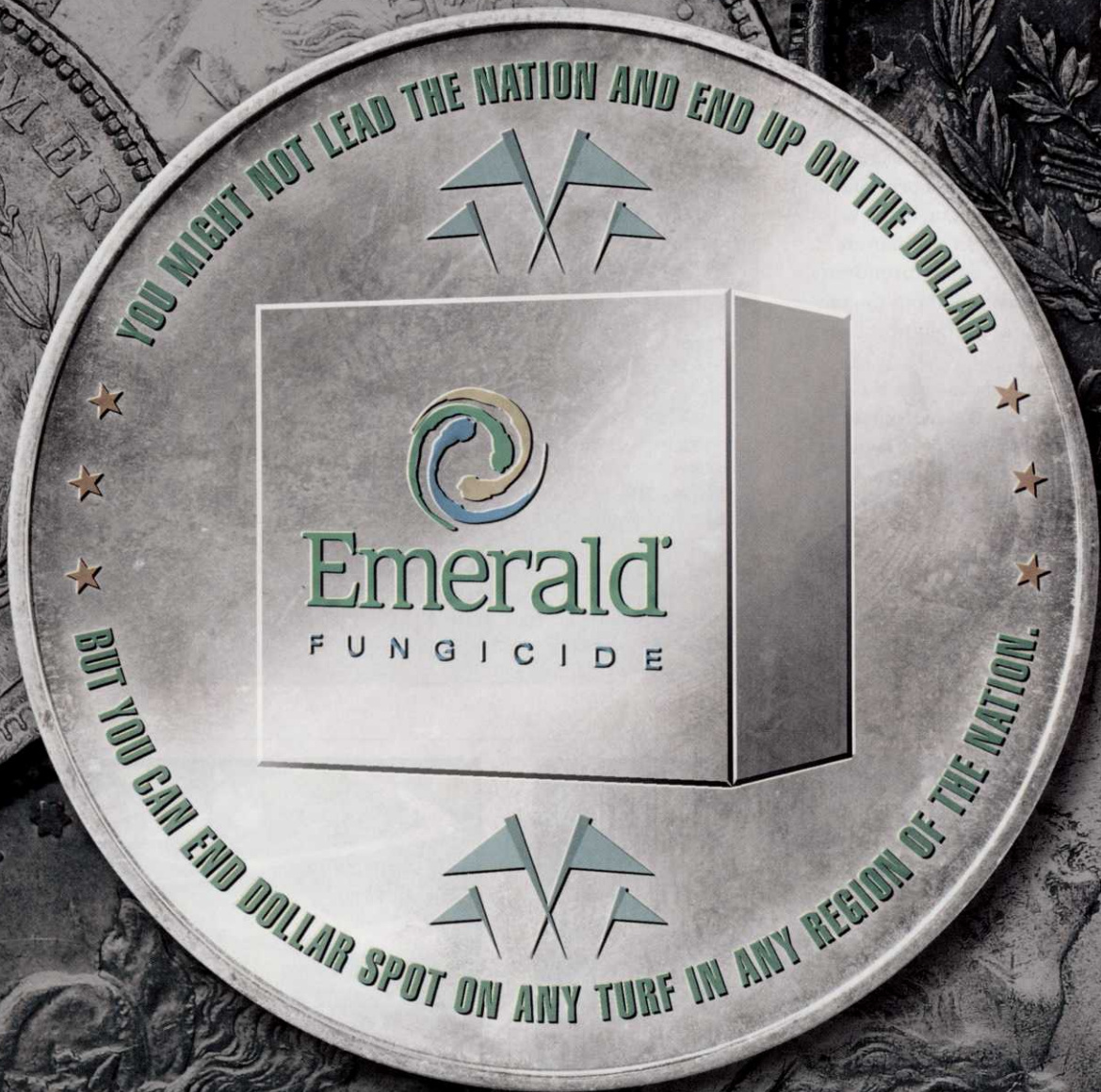
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(continued on page 97)



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 **BASF**

The Chemical Company

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(continued from page 63)

also have to start up their irrigation systems sooner. To check soil moisture, he recommends investing in a permanent-type soil moisture sensor or, better yet, a portable one to spot-check certain areas.

"Unfortunately, superintendents probably don't have anything to compare [soil moisture] to right now," says Vinchesi.

Robert Carrow, professor at the College of Agriculture & Environmental Sciences at the University of Georgia, says superintendents will have to use a manual probe or auger to go down past the surface.

"Looking at the surface and subsurface conditions, it can sometimes be deceptive because you could have three to four inches of moist soil over dry soil,"

Drought Update

Even though some areas of the country had a mild winter, that doesn't necessarily mean they had a dry one. Unfortunately for much of Texas and the Southwest, the theme was mild and dry through winter, compounding the effects of the drought that began last year.

Texas is still suffering through the worst drought in its history, which began last year. However, a few rains in the early part of the year have been a cause for optimism for USGA North-Central Director Charles "Bud" White.

"It's still bad, no doubt, but we're encouraged that in Houston and Dallas we finally in the last two or three rains started to see the lakes fill up," says White. "In those first few rains we got in winter, the lakes didn't move because the ground sucked it all up. Hopefully in March and April we'll get more rain so that the reservoirs will have more water in them going into summer because all the forecasters are predicting a dry and hot year again this year. If we go into summer with low water reservoirs, that will really make for a tough summer."

As of February, all of California was considered either in extreme drought or severe drought, as were parts of several Northeastern, Northwestern and Southeastern states, according to the National Oceanic and Atmospheric Administration. However, Pat Gross, director of the USGA's Southwest Region, reported that Northern California experienced its biggest rainstorm of the year in March, delivering 2 to 4 inches. But that area is still far behind the normal levels. All of New Mexico was considered to be in a moderate to severe drought.

Pat O'Brien, director of the Southeast Region, said conditions were variable in his area in March, with some places having abundant moisture while others were in extreme drought. The good news is most of the courses have the best drought-tolerant turfgrasses that do well under low water scheduling. Those experiencing drought are hoping for rain to recharge their ponds.

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says Carrow. "Growth starts out well, then depletes the soil moisture pretty quickly."

Vinchesi says most golf courses are running three weeks to one month ahead of schedule of their irrigation program, but cautions that timetable may be regional.

"If you have extensive experience with

your course, you'll know better than if you're new there," he says. "But just be aware that there isn't as much soil moisture as there normally is coming out of winter, and the groundwater may be lower than normal."

Carrow says if there is some dryness of the subsoil in areas that traditionally have spring

rains, superintendents could probably just irrigate the surface for awhile, then wait for rain. He advises superintendents to look at the monthly weather forecast to determine the likelihood of rain.

The other thing to be wary about, says Vinchesi, is salinity levels. Those courses with an effluent system that are used to having the winter flush out the salts from the soil may want to check to see if salt levels are where they need to be.

"For most guys, it's not an issue in the spring because they had the winter to flush the salt out, but they're going to have to think a little differently this year because it has certainly been different than a normal spring," Vinchesi says.

Pat Gross, director of the USGA's Southwest Region, has already seen some salinity issues on greens due to the lack of rainfall in his area. Rainfall is one-third the normal level, with snowpack in the Sierras about the same. This situation, he says, could negatively impact the water supply, especially in Southern California, for the rest of 2012.

The report out of the North-Central Region, however, is a different story. Director Robert Brame says although the region didn't get much snow, it did get adequate rainfall.

"In fact, I visited a club in Central Ohio in March and there were no moisture issues at all," Brame says. "It was normal for what you would expect this time of year. There will be isolated areas that will vary and not apply, but for the most part, even though snow hasn't been the issue, rainfall has been in a fairly good spread to keep things in order moisture-wise. However, that could change on a dime. We still have a ways to go before we get into the season itself."

Experts all agree that it's best not to just follow one general prescribed solution to the soil moisture issue.

"Don't take a global approach and assume everything needs water," advises Vinchesi. "Be diligent and check what needs water and what doesn't. Most superintendents are probably used to being really wet in the spring, but you just don't have that this year. I still think Mother Nature will pay us back somewhere, it's just a matter of when and where – whether it will be a wet spring, a wet summer or snow in April." GCI


Jason Stahl is a Cleveland-based freelance writer and frequent GCI contributor.



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

ANOTHER SHOW SEASON IS IN THE BOOKS

Call it the annual rites of winter. In the first quarter of the year, golf professionals gather at the PGA Merchandise Show, club managers learn at the CMAA World Conference and golf course superintendents, owners, designers and builders convene for the Golf Industry Show. Even without the proverbial big top, the annual three-ring circus is filled with inspiring people and ideas. Here are my takeaways from the 2012 Orlando-New Orleans-Las Vegas swing.

OPTIMISM IS MAKING A COMEBACK. Attendees, manufacturers and officials at all three conferences were in agreement that 2012 will be better than 2011. Their outlook is backed up by the latest Small Business Optimism Index, as measured by the National Federation of Independent Business. The index is up 4.4 points (94.3) since its low of 84 in Q1 2009.

INNOVATION HAS SLOWED. Reflecting the trailing-edge nature of many golf ventures, the show season was marked by the lack of new products. Golf equipment-makers offered remakes and repaints of former models; technology providers demonstrated upgrades and enhancements on established platforms. But in the absence of volumes of new products, some new thinking caught my attention. Two examples:

- Western Golf Properties seems to have uncovered a better method for building revenue at the clubs being operated by the boutique management company based in Santa Ana, Calif. Bobby Heath, president, and Christina Khamis, WGP marketing guru, have focused on best management practices that are generating substantial increases in member and customer retention, improved volume counts and increased revenues within the daily

fee units within the WGP portfolio.

- Tom Bennison, a partner with Fore Golf Partners, says he "looked at 120 deals in 2011 and we actually closed on two of them." The discipline and unique understanding gained from years of service as an acquisitions executive at Club Corp are helping

Attendees, manufacturers and officials at all three conferences were in agreement that 2012 will be better than 2011.

Bennison and Fore Golf sort through properties to improve margins from previously flat operations. They provide guidance for other buyers and sellers.

PRICES ARE INCREASING. Costs of supplies and resale goods produced in Asia are on the rise. Labor costs in Asian producing countries are escalating, and it appears this trend will carry through into 2013. The per barrel increases in oil are inflating freight costs, and many are planning for as much as a 3 percent increase in 2012 on everything delivered to the club. In addition, costs for most chemicals, pesticides and petroleum-based products will escalate. To reverse fuel surchargess, savvy managers are seeking delivery credits on bulk deliveries.

PRIVATE CLUBS ARE RECOVERING. Stephen Johnston, founder and president of Global Golf Advisors and my partner, told CMAA delegates the most noticeable difference between clubs that are performing well and those still struggling is in two parts: a concentrated focus on facility and program upgrades; and programmed member-

ship sales. According to Johnston, clubs that cut spending and capital improvements at the outset of the recession are suffering while clubs that committed to quality and service are growing. Successful membership sales result from properly planned market placement, which is based on diligent market analysis, strategic messaging and tireless sales efforts.

FOCUS ON REVENUE PLANNING. Most segments have embraced the necessity of planning. Before the economic downturn, many operators lacked long-range strategic plans. When the cold winds of change began to roar, these ill-prepared operators were badly damaged and some did not survive. But many top-performing managers and operators have taken a deliberate approach to planning, incorporating the three-step process we advocate to our clients:

- **Develop a comprehensive strategic plan.** This identifies the primary goals and objectives, analyzes market conditions, identifies opportunities, executes a dispassionate SWOT analysis and produces succinct findings and recommended actions.

- **Convert the strategic plan into an annual business plan.** The business plan describes in detail the actions and tactics that will be executed in support of the strategic plan.

- **Drive down accountability to the management team by measuring and rewarding key performance metrics.** Many club managers, golf professionals and superintendents are not given precise goals and objectives, which can be directly related to disappointing performance. The precision comes in the selection of the key performance indicators that must be measured and monitored.

With another show season in the books, we can only wait to see if these trends gain momentum in 2012. **GCI**

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by Bruce Williams, CGCS

Hit the ground running

GCI's Bruce Williams outlines what you should be doing your first day as the new superintendent.

The impression you make on your staff during the early days on the job will be lasting. When taking on a new challenge, there are a variety of items that need to be analyzed and evaluated as quickly as possible. Some of these items may have been reviewed prior to accepting the job, but that is not always the case.



TEAM. While many people believe we are in the turf business, we are actually in the people business. So make meeting and greeting everyone at the new facility a high priority. The staff that will be working for you may vary from a handful to a couple of dozen individuals. No superintendent can maintain a golf

course alone, so embrace those who will be responsible for your future success.

Within your first few days at the course review each individual on your team. This includes individual sit-down interviews and a review of each crew member's personnel file to learn his history. Interview questions should include asking them what they do for daily tasks. Find out what they like to do and what skills they either have or wish to learn.

Never forget they are measuring you up as much as you are evaluating them.



FLEET. Seldom is a full sheet of the equipment inventory offered to prospective candidates before taking a job. If the list does not

exist or is not current, then have your new staff get a quick start to bring it up to speed.

All equipment should be listed along with items such as year of purchase, brand, model No., purchase date, depreciation period and average life expectancy. A simple walk through the turf care center will not be as meaningful as the development and utilization of this list.



IRRIGATION SYSTEM. I can't help but remember a scenario a good friend encountered when he took on a new job. He had been hired in the Chicago area over the winter months. Within a few weeks of taking the job it was time to energize the irrigation system. Unfortunately, the

previous superintendent had not blown out the irrigation lines and most of the smaller lines had frozen and broken over the winter. Talk about a rude awakening to the new job.

Chances are you won't encounter this level of tragedy during your first few days on the job. However, most superintendents are dependent on their irrigation systems to survive the summer and any other periods of drought. Likewise, successful golf course superintendents are highly dependent on the quality and efficiency of their irrigation systems.

Conduct a preliminary inspection and get answers to the following questions:

- What is the age of the existing irrigation system?



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PROFESSIONAL DEVELOPMENT

- What is the condition of the irrigation system?

- When was the last irrigation audit conducted?

- How effective is the system?

- Have all the corrective measures been taken to make the system most efficient?

At the first opportunity, it is essential to schedule an irrigation audit by a certified irrigation auditor. Water is a valuable commodity and a major budget item in many parts of the country. All too often courses take for granted that their distribution will never change. This is simply false. By checking the quality of nozzles, impellers and overall pressure the potential for a 15-20 percent increase in efficiency is achievable by the new golf course superintendent.



PLANS. Few golf courses have a "master plan" developed by club leaders in conjunction with a qualified golf course architect. These plans outline the direction of the golf course for any future

architectural revisions and upgrades.

Blueprints are a valuable resource and can tell you a lot about the history of the golf course if they have been saved over the years. I would hope that all golf courses have an "as-built" blueprint that would show the many irrigation pipes and wires under the golf course.

And while few courses have these, a tree inventory is a desirable commodity, as well. So how can one manage tens of thousands of trees on the golf course without knowing how many of each species and also what type of a fertility, pruning and integrated pest management program is needed?

Does your golf course have a GPS map? Every golf course requires base numbers to calculate things like mowing acreage, spray applications and bunker volume. If the base numbers used to calculate these items are incorrect, then any and all calculation totals will be guesstimates.

The same goes for golf course standards. If the golf course has no written standards, then

it would be appropriate to start developing them in the early weeks. The standards will only have value if aligned with available budget dollars. All standards should be developed jointly with ownership and governance of the golf facility.



BUDGET. The budget of the previous golf course superintendent may not be the same budget you will operate under. I am aware of several situations that new superintendents were given the budgets of their predecessors who had lost their jobs for poor golf course conditions. The reality was that there was inadequate funding to support the dreams and desires of the membership. So either prior to the point of hire or immediately after hire it is imperative to get a full understanding of what it will take to take that golf course to the "next level".



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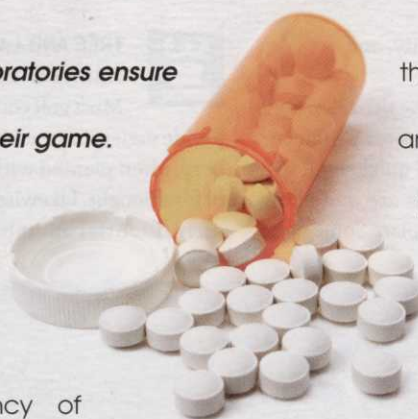
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organization. Those individuals will include fellow employees, members of the club and club officials who will all want to stop by and say hello. Take inventory of all of these people as most of them can and will become your allies in the years that lie ahead.

Make the time to meet with everyone and even spend some time, during that first week, working the pro shop, the grill room or the first tee. People are excited about your hire at the facility. I am sure there will be no shortage of opinions shared about what is right and what is wrong with the golf course. I have always believed isolated comments are not as large of an issue as repetitive comments that begin to show trends and require action.

Make no promises other than evaluating the property and op-

erations in its entirety. Explain there is a lot of work that lies ahead and the first few months will be spent putting together a plan of action to be evaluated by club leadership.



AGRONOMY. Golf course agronomic issues may be some of the easiest issues to manage when starting out at a new facility, if only for the simple fact that is what we've been trained to do. Look at the history of various reports that will include vital information:

- Soils,
- Water quality, and
- Turf types.

Is your turf healthy? Are all the nutrients in proper balance? Soil tests should quickly tell you what your needs are and allow you to develop a plan. Some parts

of the country have very poor water quality. This can result in serious turf decline. Analyzing water quality reports allows you to develop a plan to overcome high salts, high bicarbonate and high pH.

Be sure you are trying to grow the right turf types in the areas that they belong. It is often said that things are done because they have always been done that way in the past. A new face on the property allows for fresh input and the ability to move things in a better direction for turf types and varieties.



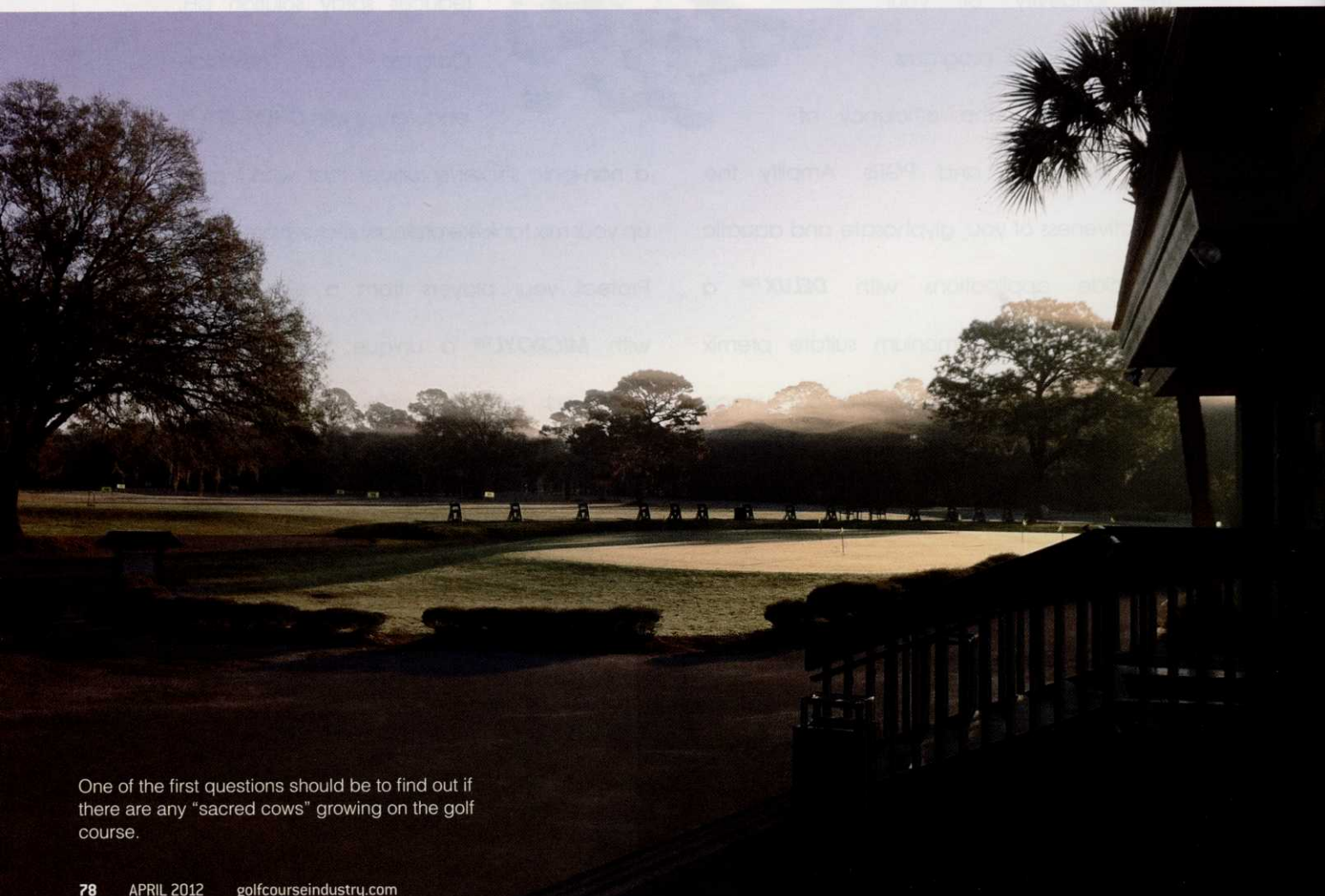
TREE AND LANDSCAPE MANAGEMENT PLAN.

Most golf courses have a wide variety of trees and shrubbery, often planted without a lot of forethought. Likewise, decades of influential members have

often dictated the planting and landscape components at many golf courses.

One of the first questions should be to find out if there are any "sacred cows" growing on the golf course. Many of you can relate to a special tree or memorial trees that can never be touched on the golf course. Find out where they are and the history behind them before you do anything.

Trees are planted by well-meaning people and thousands came onto golf courses after the decline of the American Elm in the 1960s. Now those trees are sending their roots into golf greens, tees and fairways. Shade creates issues on greens and can be a causal factor in turf decline. Trees require more than just the cost of planting — they require actual maintenance over time.



One of the first questions should be to find out if there are any "sacred cows" growing on the golf course.

Most golfers are not in favor of tree removal, but competition for water and nutrients require that we pick and choose what is most important for high-quality playing surfaces.

Using the list above and by adding a few plans of your own should get you headed in the right direction in your first week or two on the job. There will be crisis to deal with and there will be fires to put out. That is a part of what we do.

Through evaluation and analysis of the aforementioned items it is time to set up the game plan for the future. This takes place by creating a clear vision of the goals and objectives for the golf course and facility. Adequate resources in manpower, equipment and other resources must be considered to move the process along. **GCI**

Bruce Williams, CGCS, is principal for both Bruce Williams Golf Consulting and Executive Golf Search. He is a frequent GCI contributor.



BE ALL you can be

By Bob Lohmann

Superintendents who arrive at a new golf course posting have plenty to keep them busy. Way too busy, in most cases. The same applies to an assistant who has been newly promoted to the facility's top spot. The last thing they need is more to think about, but I'm going to tax your brains anyway.

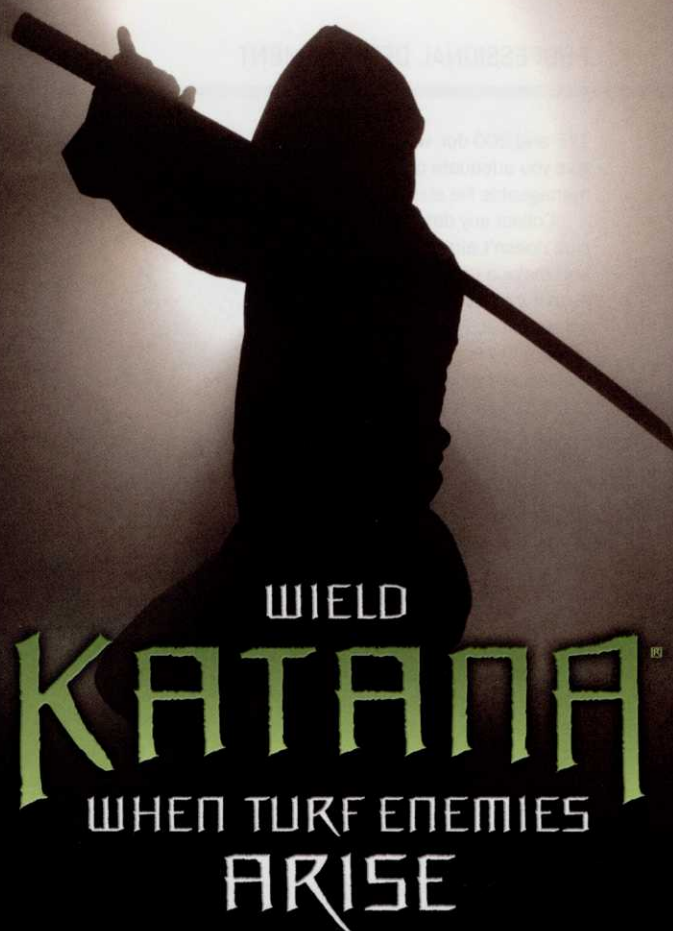
I've outlined several constructive ways to think about yourself in your new job. With more than 30 years in this business, as an architect and contractor, I have seen literally hundreds of "transition" situations where a new superintendent comes on board. It's tough duty – so much to absorb and so many people to impress right away. Aside from piling even more on your full plates, however, these calls to action will help you better adjust to and take control of your new course. In time, they will give you an edge in dealing with staff, superiors, vendors and golfers. They will also chart a wiser course for the facility that now depends on you.

Be an historian. Collect and organize all the course data you can find. Lean on staff and your new boss in order to gather all of the documents relevant to your facility. Review them, understand them and archive them. In short, take on the role of course historian.

Why? Well, because that information is the stuff you'll need, eventually, to do all sorts of important things, mainly strategizing effectively about how best to maintain key aspects of your course and making the case internally for future improvements.

Take your paper plans and have them scanned into digital format for ease of organization, space and future use (invest \$100 in a 1-terabyte external hard drive to store it all). You will learn a ton about what's gone down prior to your arrival. What's more, these are the first things architects, contractors and consultants request when working with a course client, and digital is the way to go these days for ease of sharing and, let's face it, digital is built to last. Paper is not.

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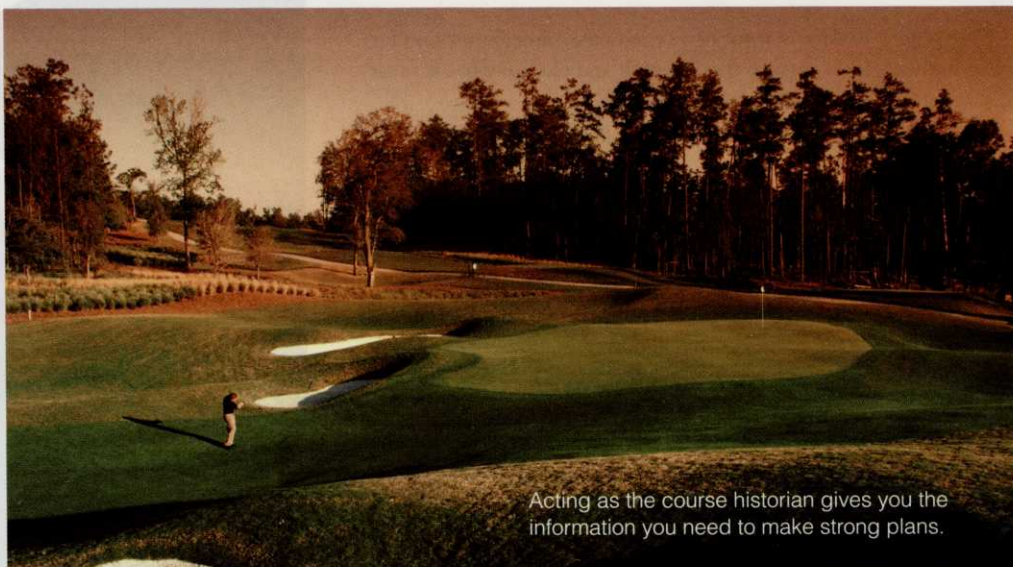
175 and 200 dpi, which will give you adequate quality at a manageable file size.

Collect any data your new club doesn't already have stored and make a record of it, digitally, even if it's a simple Word file or spreadsheet. For example, gather the information currently stored in the brain of your inherited irrigation technician, especially if he/she's the only connection to that info – then get it recorded using GPS. Hire a consultant to help, someone who understands how things are installed so they can interpret the data accurately. Request all future information in paper and digital format.

The value of archiving this sort of information is manifold. It allows you to make immediate connections to the past, which in turn allows you to understand the story behind your new club. This was vital at Poplar Creek Country Club in Illinois, a municipally-owned facility where we recently wrapped up a major storm water management project. Prior to approval, we illustrated the incredible increase in development around that golf course over the last 30 years, using documents we and the owner had archived. Our data helped paint a picture for the Park Board commissioners and the permitting agencies, so we could illustrate the value and need of our project. More important, it expedited the approval process.

Be a paparazzi. Take photos of everything. The best way to tell and/or understand a story is to illustrate it. For us aging folks, it's also the best way to remember those stories! Proper photo imaging of problem areas will make a stronger impression on your board or to your new owner better than words ever will.

Photos also allow an architect, for example, to demonstrate proposed changes to a particular hole with alarming realism. Say your first summer on the job you notice a number of areas where trees are impacting turf health. Simply removing, or even suggesting their removal could be a political nightmare, or even job-threatening. But having someone assist you in illustrating how things might be improved with them gone, via photo imaging, is a great way to sell your idea without the risk. Think about



Acting as the course historian gives you the information you need to make strong plans.

how much time, trouble and money that can potentially save.

Of course, there are all manner of projects that superintendents may wish to undertake to affect positive change. All of these projects need to be paid for and staffed. Again, this sort of digital documentation helps a superintendent sell a project to higher-ups. It's a great tool for marketing and presenting to your boss, or to your stakeholder golfers, allowing you to validate your first impressions and support your ideas on future course-improvement opportunities.

This type of imaging also allows you to start exploring materials and

proposals.

It's important to document where and when you took your photos, too. The simplest way is to mark and locate this info on a course map, either by hand or digitally. This allows you to go back later and take the "After" picture in the exact same position. It sounds tedious, but trust me, it'll add a level of authenticity to your story and presentations.

Be an executor. I think most supers develop a list of goals for their course in their heads. New superintendents need to get that list going as soon as possible.

Write those goals down in a strategic plan that stretches from daily management to long-term management to future renovation. With this list of goals, you can prioritize them, adjust them according to events, and start strategically building your case for funding and logistic support.

One helpful way to think about this planning is the living will. Create one for your new course that focuses on key features. Trees are a good example: Hire an arborist to survey and categorize your trees and assess them for value. More important, do your own assessment that includes a plan of action in the event of a course renovation or severe weather event.

This plan is essential to have on hand for discussion and remediation purposes, and the more prepared you are from the start, the easier it is to turn anything – even a tragedy – into

an opportunity. Jefferson City CC in Missouri is an example of how a tragedy jump-started an improvement project. While our firm was gaining approval for a renovation program there, which required significant tree removal, the club was hit with an ice storm. The damage was devastating, but it opened up an opportunity: the cost (and shock) of tree removal was covered by insurance money, thus freeing up some dollars in the project budget – and the newly cleared spaces allowed us to reinstate some long-held, long-planned ideas that had been nixed due to the cost of tree removal.

We turned those ideas into some of the members' new favorite holes. And that's the last bit of new job advice I'll burden you with: Be curious, because that's what leads to good ideas.

Be inquisitive. Engage your new staff, members and management in discussion and research. Reach out to your colleagues, architects and builders and exchange ideas. And try, when you can, to do all this in person. Technology is great but once you've succeeded in becoming the historian, paparazzi and executor of your new course, you can best bring to bear all you've learned in face-to-face contact with others and all their ideas. **GCI**

Bob Lohmann is founder, president and principal architect of Lohmann Golf Designs, and a frequent GCI contributor.

"Unfortunately, the previous superintendent had not blown out the irrigation lines and most of the smaller lines had frozen and broken over the winter."

aesthetics well in advance of any construction. If you're lucky (and we all know that most luck is "made" by those who are best prepared), you'll ultimately get to enact your ideas after you've settled in at the club – then go back and review how they compare to your initial



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WHAT TO LIKE ABOUT AUGUSTA NATIONAL

Augusta National gets a bad rap. Not from the general public, which would give its right golf ball to play there or just walk its hallowed ground for a day, and not from most of the pros, who fall over themselves to praise the club and course for their history and tradition.

But among superintendents and others in the maintenance profession, Augusta is held up as the ultimate bad guy for its dedication to creating deep-green carpets of fairway, super-slick greens, ornately flowering surroundings, and other intentions to perfection. I've had numerous people in our industry come up to me and start bad-mouthing Augusta.

Well, I've got news for you. I'm an Augusta fan. I drink the green Kool-Aid – which isn't to say that I don't note some shortcomings. And I sympathize with my brethren who have to answer the same question from their members every spring: "Why can't we be like Augusta?" It's unrealistic for almost any other course in the world to aspire to that look, and certainly not if the members aren't willing to invest millions of dollars.

So what do I love about Augusta National and The Masters? Let me count the ways...

Among its general qualities: The tournament is held at the perfect time of year; it's an invitational that requires exceptional play (usually including a victory) to get in; the club gives a lot of money to charity; the par-3 tournament is not only fun but shows that short courses still have a purpose and that when all is said and done, there is no doubt that the tournament will have identified the best player that week.

But let's dig a little deeper, delving into the agronomic aspects of Augusta National, things that most golfers – and even many people in the industry – don't know and therefore don't appreciate.

Yes, we can all see that Augusta National is an agronomic Disneyland, with no stone left unturned in pursuit of creating the perfect playing field for golf. The staff's attention to detail is unprecedented, which not only results in the beautiful course we see but continually raises the bar for all involved.

I think the course set-up is second to none, and remains that way year after year. Can you think of another course that has been so flexible about changing to match the evolving level of players' abilities? You might not agree with all of the alterations, but how many other courses have even tried

to accommodate the new equipment and fitness standards of the world's finest golfers?

Changes aren't only made to fit the players. Also taken into consideration are the "patrons," keeping in mind that they, and the millions of viewers, want to see every inch of the course.

The club keeps reams of information on the course from year to year, assuring that hole locations are nearly identical to where they were in the past, which adds to everyone's enjoyment. They're just as meticulous about maintaining green speeds -- and by not making those speed ratings public, they perform a real service to course superintendents everywhere. Another point about Augusta's greens: The speeds are allowed to vary green to green based on surface slope and incoming shot values and other options: Nothing is cookie-cutter at Augusta.

**Well, I've got news for you.
I'm an Augusta fan.**

The course also has been something of a living laboratory for turf grass research over the years, aiding breeding efforts of Penn A & G by Dr. Joe Duich of Penn State. Augusta was also one of the first to install internal drainage and water-removal systems as well as sub-surface heating and cooling devices. Plus, the club has been at the forefront in energy savings, GPS-controlled pesticide application, turf grass internship programs and proper pesticide storage and removal practices.

Furthermore, I can't think of another club that has done as much to advance both the image and the profession of the superintendent, building a maintenance facility with all the bells and whistles of agronomics, ergonomics and environmental safety. How many maintenance buildings do you know of with a real reception area? The club understands and appreciates what its maintenance staff does. And they also support it with a healthy budget.

What I love most about Augusta is how all of these actions, when taken together, create an atmosphere of respect and proper behavior that extends to everyone: patrons, players, the media, club members and employees.

And by limiting commercials, I get to see more golf – and usually better golf – than at any other event during the year. **GCI**



CREATURE FEATURE

A mild winter over much of the U.S. has superintendents concerned about turfgrass pests. Experts say their concern may be justified – depending on the region and the specific pest.

By Jason Stahl

A warmer than normal winter in many parts of the U.S. has been welcomed by most people, especially those who usually get socked with sub-zero temperatures and piles of snow. Most golf courses have embraced it heartily, hearing the cash registers ringing more often and much earlier than normal. But from a turfgrass health perspective, the mild winter has caused a bit of worry to superintendents who fear larger pest populations and earlier activity.

Depending on whom you talk to, a mild winter leading to more insects can be called one of two things: a myth or a scientific fact. Some describe it as Doomsday, while others plead with people to not ring the panic bell but be mildly concerned with it.

According to Rick Brandenburg, professor of entomology

at North Carolina State University, it's far from an old wives' tale. The one thing he cautions against, however, is making a broad, sweeping statement about the phenomenon.

"One size doesn't fit all. A mild winter in one part of the country with one particular insect may have one effect, whereas a mild winter in another part of the country with a different insect may have a completely different impact," says Brandenburg. "The one thing we cannot do is to just make this generalized statement of, 'Oh, this is what's going to happen because we had a mild winter,' because that would be very inaccurate."

The reason most people think that a mild winter will lead to more pest problems, says Brandenburg, is because a hard winter kills many of them off.

But that, he says, is a bit of a misstatement as well. Again, one has to take into account the region they're in. Brandenburg compared North Carolina to New York.

"If we had Japanese beetle grubs in the soil in North Carolina, those would survive the winter," he says. "But if we had a cold winter, then some of them would probably be killed. But look at these same grubs in the soil in New York. I assure you our worst winter wouldn't be anywhere near the worst by New York standards."

Brandenburg also used the mole cricket to illustrate why people err when they make generalized statements about mild winters and insects. He called them a tropical insect, and thus when they're subjected to a warm up of 5 degrees in winter in North



Carolina, they'll still think it's really cold.

"Even though it was warm, we saw no surface activity from mole crickets in winter because it still was too cold for them to get active, so I really don't think the mild winter will affect the abundance of insects in much of anyway," says Brandenburg.

He also mentioned that a lot of turfgrass pests have a pretty wide range of temperatures to which they're resilient.

North Carolina, Brandenburg says, had a somewhat milder winter than normal this year, with January temperatures in the 60s as opposed to the 50s. But that difference, he says, isn't enough to push insects' activity up weeks upon weeks in advance of when they would normally appear.

"The January and February temperatures, even during a warm winter, are still typically



Teeing off on Emerald Ash Borer

Ash trees are an abundant, environmentally important and aesthetically pleasing component of many golf courses in the Midwestern and Eastern U.S. But in many areas, ash trees are under attack by the Emerald Ash Borer (EAB) – a devastating invasive pest that has killed tens of millions of ash trees in 15 states over the past decade and threatens to kill untold millions more. EAB is expected to cause \$10-\$20 billion in damage to urban landscapes in the next decade and will impact courses throughout ash's native range.

Until recently, preemptive tree removal has been the primary tactic employed to combat EAB. However, experts now recommend an integrated approach to EAB management that combines conservation of healthy ash trees via treatment and removal of unhealthy ash trees. This integrated approach is supported by university scientists, commercial arborists, municipal foresters, public works officials and non-governmental organizations (NGOs). There are several facts that golf course superintendents should know about EAB:

- EAB will eventually find and kill your ash trees if they are not treated with an insecticide. Tree mortality rises slowly at first after EAB moves into a new area, but once 20 percent of ash trees in a given area have died, the remaining 80 percent of trees typically dies over a 3-to-5-year period - unless they have been treated with an effective product. On courses where ash trees are abundant, rapid tree death will result in high tree removal costs over a short period of time.
- There are three systemic insecticides registered by the Environmental Protection Agency to control EAB—dinotefuran, emamectin benzoate and imidacloprid. Each has proven effective against EAB in university research trials.
- If EAB has been detected within 15 miles of your golf course, you should start treating.
- Insecticide treatment is most reliable when applied before ash trees exhibit significant symptoms of EAB infestation (i.e., less than 30-to-40-percent canopy thinning).
- In most cases, treatment of healthy ash trees is less costly than their removal when all of the economic, aesthetic and environmental costs associated with removal are considered. Also, treatment can spread out management costs over a longer period of time relative to tree removal.
- Some EAB treatment methods (e.g., basal trunk spray, soil drench) are easy, fast and require minimal training—and do not require expensive application equipment or hiring an outside contractor. Imidacloprid and dinotefuran can be applied as a soil drench and dinotefuran can also be applied as a basal trunk spray (lower five feet of trunk) using a backpack sprayer. Both treatments can be applied in-house using existing equipment and maintenance personnel. Other treatments, such as trunk injection with emamectin benzoate, require specialized application equipment and are best applied by professional arborists.

Dr. Joe Chamberlin is a regional field development manager for Valent Professional Products.



FIRE ANTS

It will be business as usual for fire ants.

Bud White, USGA Mid-Continent Region, says entomologists are saying that if his region gets rain this spring, the fire ant mounds will be popping up like crazy and superintendents will have to be on guard to make treatments. "Research shows that fire ant control done in March will just about give you year-long control," says White.

North Carolina State's Rick Brandenburg says fire ant activity in his state has been fairly normal, too.

"It was just warm enough that we had very few periods where mounds were inactive, so you literally could have treated for fire ants in much of January and February," he reports," Brandenburg says.



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Nematodes

For the most part, nematode activity is predicted to be worse in 2012.

Bud White, whose Mid-Continent Region has been devastated by drought, says the nematodes will be just as bad as they were in 2011 unless they have a mild summer.

"If we have a mild summer, it will be easier for the turf to grow and fight against nematode damage," he says.

John Foy, USGA's Florida Region, nematodes are already a problem in the Sunshine State.

"On the last four site visits I've been on, nematodes were definitely a problem," Foy says. "They're starting to become more active and haven't slowed down. They're worse because of a lack of cool weather. You typically get a slowdown in nematode activity in December, January, February and March because of cooler temperatures, but it just hasn't happened this year."

Adam Miller, USGA's Northeast Region, is less certain on what will happen with nematodes this year.

"Nematode populations increase with a warm summer, so with the past two warm summers and with the winters not being all that damaging, populations could be higher," Miller says. "But I think it's so challenging to predict what nematodes are going to do, and summer really dictates that more than anything else."

Last year, Bayer Environmental Science launched Nortica for managing nematodes, which Product Development Manager Richard Rees says is heavily dependent on timing for its action. "It has to be applied during the root initiation of warm season turfgrasses, and at the same time we have to do it before the hatch index of the eggs has reached a tenfold increase," says Rees. "These increases are exponential with temperature increase, and the temperature for triggering nematode hatch lies 5 to 10 degrees above that fall root initiation, so the nematodes have the advantage. That's why timing is so critical."

below the threshold for which insects would develop and show up early," says Brandenburg.

An exception, he says, is in the Northeast concerning the annual bluegrass weevil. He says superintendents in that region are already catching them in traps, but it's an insect that's well adapted to cold temperatures and will come out very early if given a warming period.

Even though Brandenburg believes the quantity of insects won't go up, he does think as a general rule that they'll probably show up sooner, up to two to three weeks sooner this year. The March temperatures, he says, will be a big predictor of that.

"In my experience, January and February don't have much of an impact on when insects show up," he says. "March is when we really can get warm temperatures that affect insects. In a lot of areas in the East, it will be in the 70s and, in some places, the 80s, whereas the average temperature might normally be 55. Insects take note of that and start developing and moving forward."

Like Brandenburg, Richard Rees, product development manager for Bayer Environmental Science, doesn't expect to see vast changes in the insect population in 2012. But next year could be a different story.

"The net potential for early insect activity in 2012 is high, but increased populations would likely not be seen till 2013 when things begin to wake up in spring," says Rees. "For species that have multiple generations per year, the early start could mean that the normal path of generation growth in late summer and fall will be completed, which could lead to carryover populations in 2013, leading to substantially higher populations than normal."

Brandenburg's bottom-line advice to superintendents is to look at the key pests in their areas, what the weather was like and what that weather means to those key pests. He also encourages superintendents to analyze degree-days and compare them to last year and the 30-year average.

"If it says you're three weeks ahead of schedule in degree-days, then you need to go out and scout three weeks ahead of normal, which helps prevent you from getting caught off guard," he says. "A winter this mild really gets the guys on the firing line thinking about insect development and how to monitor it, so it could be a good educational moment for them."

Of course, all bets are off if another freeze comes through, says Rees.

"If some of the early insects have emerged, they'll be taken out before the first generation egg-laying hatch, and that could mean populations would start to decline," he says. "But from all accounts, it appears the warm-up we're experiencing, particularly in the Southeast, is here to stay, and there is no indication that there will be any deep changes." **GCI**

Jason Stahl is a Cleveland-based freelance writer and frequent GCI contributor.

Regional bug breakdown

GCI checks in with the USGA's regional directors on the effect the mild winter is having on insects.

Northwest Region

It's business as usual, says Director Larry Gilhuly, with his region having gotten its normal mild winter.

"I don't expect any major insect population issues," says Gilhuly. "And we don't have a lot of activity where guys go out in advance to spray because we just don't have those problems."

Gilhuly used one of his region's pests, the European crane fly, as an example of one you don't necessarily treat for in advance.

"It's not that you spray that much unless you see the activity, and it doesn't always happen in the same place all the time."



Northeast Region

The Northeast Region is seeing earlier activity of annual bluegrass weevils, which is the No. 1 pest in that region, says USGA Turf Advisor Adam Miller.

"Because of a lack of a true winter and a warmer spring, they're moving a little more than normal," says Miller. "That kind of has a lot of people wondering if they're going to be more problematic than usual – and they're usually challenging enough."

Miller is advising superintendents to mix application timing. Also, to monitor their activity with pitfall traps and Lemon Joy soap flushes to get the best gauge on activity. Superintendents also need to rotate insecticide applications so as to avoid creating potential resistance issues.

Miller says his region is also seeing increased populations of crane flies, particularly in parts of New England and New York, which can be traced back to a wet fall that increased the survivability of the eggs that were laid. But it's only a problem for a small percentage of the Northeast.

Miller says he doesn't anticipate problems with white grubs because he says their mortality isn't dependent on winter since they simply move deeper in the soil as it gets colder.



North-Central Region

Director Robert Brame says he hasn't seen real concern from superintendents on insects gone wild.

"Right now, guys are more worried about *Poa annua* seedheads," says Brame. "That's getting more attention than insects. But certainly guys are watching all of the above."

Brame admits grubs could be an issue since their survival is based on soil temperature, but he says most superintendents in his region haven't had an issue with them over the last several years.

"They'll follow their standard protocol for treatment. It's just a matter of timing," he says. "And obviously, they'll keep a close eye on things and do scouting. That's a key component of any pest management program."



Florida Region

Director John Foy says superintendents in his region started seeing mole crickets in mid-March, which he says are always his region's main concern. The adult activity, he says, appears to be a little heavier than normal so far, but he can't say whether populations will be higher.

"We're not really advising superintendents to do anything different other than their normal program," says Foy. "These are overwintering adults, so they're kind of difficult to kill. Superintendents are starting to do spot treatments with a contact-type insecticide, so it's kind of a standard mode of operation."

As far as grubs are concerned, several species are becoming more of a concern in Florida, and Foy expects activity to begin even earlier.



Mid-Continent Region

Due to the drought, Director Charles "Bud" White is expecting a little less insect activity in early summer. Fall armyworm and nematodes were really bad last year, he says, and with the conditions the region will experience, he expects them to be a problem once again.

"There may not be tons, but with the conditions the way they are, what is there will be active earlier," says White. "Some of them may get another life cycle the next year, but that doesn't mean they'll start out to be a lot more necessarily."

Grubs could come out sooner, White says, due to warmer soil temperatures from 70-degree days in early March.

White's advice to superintendents is to monitor life cycles and make earlier applications for grubs this year.



Mid-Atlantic Region

Director Stanley J. Zontek says his region's main concern is the annual bluegrass weevil, which being out earlier makes the timing of insecticide applications more challenging.

"Some females can overwinter with sperm from the fall, so they can actually start laying eggs

pretty quickly," says Zontek.

With 70-degree temperatures in March, Zontek predicts that even if it gets cold again, it would have to be cold for a long time to have an effect on turf pests. "And what are the odds of that?" he says.

Zontek says an entomologist would probably say the insects showing up early are immature adults and haven't reached the

mating or egg-laying stage yet, therefore you can delay spraying. But the superintendents he has talked to have a more practical view on controlling them.

"They say, 'If I see them, I'm going to kill them. If that means I have to come back with another treatment, than you know what? We made so much money over the winter that we can pay for it, and I would rather try to kill the insect than worry about saving some money.' And it's hard to argue with them because they're responsible for the golf course."



Like soup or salad and paper or plastic, superintendents must wrestle with the flat-or-relief conundrum.

Answering the eternal QUESTION

By Dennis Lyon, CGCS

The questions are: soup or salad, paper or plastic, flat or relief? The answers are: salad if you're on a diet, paper if you're out to save the planet and for flat or relief – check with your equipment manager. Golf course equipment managers, formerly known as golf course mechanics, all have an opinion on how best to sharpen and maintain reel mowing equipment.

Flat or relief, which is better? I took this question to four equipment managers who work for the City of Aurora, Colorado Golf Division. After my interviews, I categorized their responses as, two relief and two flat. Bob, 29 years of experience, and Greg, 20 years of experience, are in the flat-grind camp. Ben, 15 years of experience, and Jarrett, 31 years of experience, are in the relief-grind camp. All four remember the old manual grinders when they stood for hours moving the stone one pass at a time back and forth over the reel or bedknife. Jarrett says the new automated spin grinding equipment has added 20 years' longevity to his knees and back. Jarrett, the most senior of the group, also recalls the old sharpening equipment and the "art" of setting it up. He says, back

then, to grind reels the equipment was so imprecise the set-up was about 80 percent feel and 20 percent technology. Today, with the new gauges and equipment, he says the set-up is almost 100 percent technology. He can now teach anyone to grind reels and bedknives.

When it comes to grinding, Ben uses a 35-degree relief grind on reels and an 8-degree relief grind on his bedknives. Jarrett says a relief grind at about 20 degrees on reels and 4 to 5 degrees on bedknives is his preference. Jarrett says his new Foley Grinder can put a flat or relief grind on reels. When he sharpens his units in the winter, he grinds the reels flat, and then puts on a relief grind. Jarrett likes the way his reels mow and says it is easier for him to keep the reels in adjustment with a relief grind.

Mowers, once sharpened, also have to be maintained. Jarrett still back-laps greens mower reels the old-fashioned way. That is, with the reels still attached to the mower on the floor spinning backwards. He also touch-ups greens mower reels on the spin grinder depending on what the issues are. The other three equipment managers feel their days of brushing back-lapping compound on the

The great debate

To subvert the simplicity gained from modern machines to enable technicians to perfect the grinding process efforts confusing the issues rage on. Following, is just a sampling of controversial issues relating to the art of sharpening mowers:

- Relief grinds on reels,
- Light contact vs. no contact,
- Pinch paper flat – cut paper perpendicular,
- Two pieces of paper, cut one pinch one,
- Back lap or no backlap,
- Light touch-ups of bedknife front face,
- Scissor cut vs. scythe cut,
- Hard back relief on bedknife top face.

There exist many ways to condition reel mowers to perform and accomplish an after-cut appearance the superintendent and, more importantly, the golfer desires. Only through a clear understanding of the theory of reel mower mechanics can a superintendent and turf technician decide on the best method of grinding and sharpening.



reels as they spin backwards are gone forever. Ben says back-lapping the old way was a way to true the reel to the bedknife. If the bedknife was out of shape, the reel became even more out of shape. Eventually, the mower would have to be broken down and the reel and bedknife would have to be re-ground. In maintaining his cutting units Ben feels the bedknife is key. With an 11-blade greens mower reel, the bedknife has metal to metal contact 11 times more often than a reel blade. Ben is always checking his bedknives and touching them up with a hand file to ensure the bedknife stays sharp.

But back to the question: flat or relief? Jarrett is of the opinion with a relief grind there is less friction because when the mower is cutting turf as there is less metal to metal contact. This reduction in friction decreases drag on the engine and mower hydraulics. Less drag means a longer mower life and a more efficient engine, which can be particularly important for high-altitude courses in Colorado. Jarrett also asks those on the flat

grind side of the ledger, if flat grinding is preferable, why do new mower reels always come with a relief grind?

Greg and Bob believe the flat grind is the preferred method and use the Express Duel Anglemaster grinder. The Express Dual is considered a flat grind system. The manufacturer calls it a hammer grind. The stone and carrier actually move on contact with the reel blade and provide approximately 4-5 degrees of relief. With his automotive background Greg says it seems strange to see the spin grinder in action as the reel tends to vibrate as it goes over the grinding stone. But he says it works. Back before the days of spin grinders Bob would use the old relief-type grinders and get as close to a flat grind as possible. He feels a reel with a flat grind will stay sharp longer and will last longer. He says with the new grinding systems, rather than back-lapping he will replace the bedknife on greens mowers and touch up the reel about once per month. Bob's other cutting units are sharpened during the winter and on an

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EQUIPMENT

as-needed basis during the season.

Flat or relief, which is better? That decision is best left to the expert on staff responsible for ensuring the mowers are sharp and ready to mow each day. As for quality assurance, one of the things Ben likes best about his job is grabbing a cup of coffee in the mornings and driving the course to check his mowers. "In addition to the course being beautiful that time of day, it is very satisfying to see well-groomed turf with tiny, precisely cut blades of grass coming off the mowers," says Ben. **GCI**

Dennis Lyon, CGCS, is a former GCSAA president, managed the city of Aurora, Colo., golf program for 37 years and is a GCI columnist and frequent contributor.

WHAT WAS & WHAT IS

Superintendents should have a cursory knowledge of reel grinding and sharpening, including how it was done in the past.

WHAT WAS

Not too long ago it was a difficult proposition to grind a reel and bedknife to factory specifications. Some may recall names of grinders like Peerless and Ideal – in the late 1960s and early 1970s, courses used "hook grinders" named for the hook that guided the grinding stone along the reel blade, one laborious blade at a time. The process of was time-consuming and produced average results. These technicians often taught themselves how to grind by trial and error or by a superintendent that learned from another superintendent and pass the information along.

Backlapping was the final stage of this process and often needed to be conducted for an hour or more to mate the reel with the bedknife. In the 1970s, manufacturers of grinders with names like Neary, Foley and Atterton & Ellis raced to the industry with the spin grinder. Now a novice turf technician could produce a great grind in less time and be certain that the reel was close to a true cylinder.

During the rapid expansion of the golf industry of the late 1980s and 1990s turf mangers were lowered the height of cut on turfgrass areas in response to better turf varieties and better overall turf management. Superintendents and turf technicians were challenged to repair, maintain and keep sharp a new generation of turf equipment that delivered much lower and better quality of cut. Greens that were maintained at a height of cut of .316 inch in the 1970s were now maintained at .18 inch.

WHAT IS

Most every golf course maintenance shop is equipped with a measuring device known as an Accu-Gage. The Accu-Gage can measure height of cut on reel mowers to the ten thousandths of an inch. Terms that were being used to describe distances and spaces are now expressed routinely in thousandths of an inch. The Accu-Gage uses a machine-shop-type dial indicator to measure the distances between the bottom of the rollers and the top face of the bedknife.

Today's reel sharpener manufacturers responded with advances in technology, making it possible to return a reel to original equipment manufacturers (OEM) specifications with the "touch of a button."

Even though these high-tech machines that sharpen reels and bedknives are much less reliant on touch, the superintendent and equipment technician must have a thorough understanding of how the relationship between reel and bedknife work to keep turf healthy and maintained at desirable heights of cut.

Michael D. Vogt, CGCS, CGIA, is a consultant with the McMahon Group and a frequent contributor to GCI.



PASSING THE TORCH

With the passing of Geoff Cornish on Feb. 10, we lost our last link to golf course architecture's Golden Age of Golf Course architecture, and intimate knowledge of all golf design eras as researcher and co-author of "The Architects of Golf" with Ron Whitten.

Despite his historic knowledge of design, Cornish's courses reflected the practical needs of his clients more than golf's historic roots. He designed more for the present and future to create affordable and profitable courses.

While Trent Jones, Dick Wilson – and later, others – grabbed headlines, Geoff spent a career delivering what he preached – solid and playable courses, flying under the radar, and yet, responsible for much of the golf in New England and introducing perhaps over a million golfers to the game.

As Geoff's last partner, Mark Mungeam, ASGCA, said: "He was a true gentleman and had wealth of knowledge on golf design and golf in general. He brought so much to public golf as he wanted to create courses that people could really play. Golf, especially in New England, would not be the same without him."

Geoff sent many letters to those in the business, and I got a letter from him just months before his death, asking me to address an issue in my GCI column. I am only happy to pass on his wisdom. He wrote, in part:

I am sure that sooner or later we will have to address this profound problem.

Long ago ROBERT TRENT JONES said "golf course architects have made it a game of relaxed recreation and limitless, enjoyment for millions and a demanding examination of exacting standards for those who seek to excel".

Since then, course architects have made golf courses the most beautiful large landscapes ever created by our species. Yet these beautiful creations are somehow discouraging beginner and forcing older players to give up the game.

Introducing the subject verges on the traitorous in light of what course architects have wrought. Yet ECONOMICS dictates that we in THE AMERICAN SOCIETY OF GOLF COURSE ARCHITECTS must do so.

If Geoff swore (and he didn't — in fact, he was the type you would have your kids hang around hoping some of his class would wear off on them) the "short

version" would be, "We make golf courses too damn hard!"

Geoff wrote of the "design triangle": playability, maintenance and aesthetics. He believed every design should address each appropriate to a course's proposed function (entry level, public, club, etc.) Most Cornish courses boasted a balanced triangle, often favoring ease of maintenance and playability by average golfers. Of course, working mostly in scenic New England, aesthetics were usually a natural "given" and he took advantage.

[Geoff Cornish] had a lasting impact on design. His courses stand the test of time. New England golf wouldn't be the same without him. He has provided pleasure to literally millions.

I haven't heard the phrase "design triangle" lately, and too many recent designs lean towards playability (for good players) and aesthetics, while under valuing maintenance concerns. That I have several bunker reduction projects right now speaks to the fact that current architects have largely ignored the practicality which Geoff knew was so important to "permanence."

I believe he was distressed that my generation of architects largely kicked his core beliefs to the side of the road, favoring "tournament tough," "highly aesthetic" and sometimes, technically poor and difficult maintenance designs, all in the name of designer awards, visual excitement and instant impact over concern of how they affected golfers every day for a long time.

At the height of the golf boom, we viewed some of his and his contemporaries' work as "pedestrian." However, some newer courses have proven less popular, and have suffered renovation or abandonment while his courses soldier on, still feeling as comfortable as an old sweater. His style is coming back in fashion.

He had a lasting impact on design. His courses stand the test of time. New England golf wouldn't be the same without him. He has provided pleasure to literally millions.

All of those things are a great legacy any architect would be proud to have. **GCI**

BY CHRISTOPHER SANN

ET

and how to use it

With increased restrictions and escalating costs for water, understanding ET is more important than ever.

As superintendents become more technologically savvy, they usually come into contact with estimated or measured values for evapotranspiration (ET) – the total of evaporation of free water from surfaces and transpiration by plants of soil water over time.

There are several ways to calculate ET, and how it is calculated can have significant effects on how that information can best be used.

POTENTIAL EVAPOTRANSPIRATION: Potential evapotranspiration (PE) is

the estimate of the maximum evapotranspiration that a uniform crop at a uniform height with an unlimited water supply can evaporate during a defined period. Estimated PE for field work is best defined in hours or days, but in weather forecasting and climate science can be summed by month.

In its most basic calculation, PE (as mm per hour) is an energy equation and equals the sum of net incoming short wave solar energy plus net long wave infrared radiation from air (in watts/hr) divided by 2.45 megawatts

“There are several ways to calculate ET, and how it is calculated can have significant effects on how that information can best be used.”

(the energy required to change 1 mm of liquid water to water vapor).

Unfortunately, the data required to make this estimate are rarely available and if they are, the conditions used to define PE are rarely met. For that reason, a PE estimate calculated from only energy readings is at best a measure of a maximum possible ET that is almost never attained.

The Penman-Monteith (PM) method is perhaps the most complicated of the PE estimation processes, but despite that complexity is the most commonly used and well-regarded of the equations, so much so that the PM equations have been adopted by the United Nations' FAO service for use worldwide in agriculture and related fields.

Unlike the basic PE calculation, the PM process takes into account several additional factors. PM adds wind speed, vapor pressure changes, air density and soil heat exchange and as a result provides a more accurate estimate of the PE from a well-watered, uniform plant stand such as a golf putting green or other sports turf surfaces. For larger plant surfaces such as fairways and field crops where water is finite and plant density and height vary, the PM equation has a tendency to overestimate ET.

ACTUAL EVAPOTRANSPIRATION.

Actual evapotranspiration (AE)

is the amount of evaporation that actually occurs given the constraint of available soil water. When a uniform crop at a uniform height has a limited water supply (plant-available soil water) the amount of evaporation that can occur is strictly controlled by the amount of available soil water. Available soil water is defined as the water content of a soil profile between its field capacity and permanent wilt points and by definition is a finite resource.

Unlike PE, AE is very difficult to accurately estimate. Even the use of soil moisture sensors with site temperature and RH data still require the complex use of a so-called 'water budget', an 'energy budget' and a soil's 'moisture release curves' to estimate accurately.

As a result, the difficulty that a finite water supply adds to the estimation process resulted in a different ET process called the Hargreaves Equation being developed. This equation uses significantly fewer variables to calculate ET – temperature, RH, and solar energy – and does take soil water content into account by basically looking at the net effect that AE has on these variables near the plant growing surface rather than trying to estimate AE from these variables. It is a subtle but significant difference and creates an estimation process in which available soil water plays a pivotal role no matter what

site conditions the plant population is grown under. The one negative with this method is that unlike the PE/PM methods it should not be used on a time frame shorter than 24 hours.

WHY SHOULD YOU CARE WHICH METHOD IS USED? About a decade ago, any ET calculation method that got you into the ballpark was good enough. But, today with increased water use restrictions, limited water resources and steadily rising costs, in the ballpark doesn't cut it.

If your ET information source uses the basic energy method, adjust that value and your water use to an appropriate percent of the estimate (usually 40 percent to 60 percent) that produces the results you seek but does not over water in the process.

If your ET estimate is done using the PM method, then those values can almost be directly used for well-watered

greens, tees and other sports turf surfaces – making sure to adjust the estimates for local conditions such as slope, orientation, transient shade, etc.

If your ET source uses the Hargreaves method, that daily value can be directly used on fairways, roughs and ornament turf areas with little change. It can also be used on well-water surfaces, but depending on management style and local conditions may require the application of additional water above the estimated ET losses.

Whatever your ET information source, ask your provider which method they use. If the method they use is unfamiliar, ask them if the ET method is a PE or AE process. If they don't know, find another information provider. **GCI**

Christopher Sann is the owner of Applied Climatology LLC, Wilmington, Del., which provides climatology and biological modeling as it relates to plant conditions.

Key points

- There are several ways to calculate ET, and each can impact how you use water at your course.
- Potential evapotranspiration (PE) is the estimate of the maximum ET that uniform turf at a uniform height with an unlimited water supply can evaporate during a defined period.
- The Penman-Monteith (PM) method includes wind speed, vapor pressure changes, air density, and soil heat exchange and provides a more accurate PE estimate.
- Actual evapotranspiration (AE) is the amount of evaporation that actually occurs given the constraint of available soil water. It is more complex to calculate.
- The Hargreaves Equation calculates ET with fewer variables – temperature, RH, and solar energy – and does take soil water content into account by basically looking at the net effect that AE has on these variables near the plant growing surface rather than trying to estimate AE from these variables.



Travels With Terry

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



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

HOMEMADE LEAF VACUUM

This 1950s vintage Toro general tractor (gasoline engine) was transformed into a vacuum/blower used primarily for leaf cleanup around the clubhouse at The Manor Country Club in Rockville, Md., where Randall Pinckney is the superintendent and Richard Bassett has been the equipment manager for the past 26 years. Bassett used a gasoline-powered, low-blow blower/vacuum with a 12-inch-diameter suction hose mounted in front of the radiator after the frame was extended. The HVAC heavy-duty ductwork was extended from the blower to a plywood box. The 3/4-inch-plywood box measures approximately 8 feet by 10 feet with a metal mechanical tailgate made from tubular steel and flat steel. It has four 9-inch-diameter holes with screens on either side to release the volume of air from the vacuum. It took about 10 days to build and most of the parts were in inventory.



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SCUBA AIR TANK

Grand Cayman in the Cayman Islands, British West Indies, has a strong scuba diver presence. The North Sound Club, the only 18-hole course on the island, repurposed a used scuba diver tank. A high-pressure flexible air hose and air chuck made it into an easily transported air tank, used to pump up the tires on the 40 E-Z-GO golf carts in their fleet. The used scuba tank holds from 2,700 to 3,000 PSI, and costs about \$4 to fill up completely with oxygen at a local specialty scuba shop. A regular air tank holds much less air at a lower pressure – which would run out quickly with use. With regular use for the carts, it would usually need to be refilled every 2 weeks. Though the tank is moderately heavy, it can be moved easily enough by one crew member to fill cart tires by hand. Two valves are installed on the tank, with one controlling the on/off operation and the other regulating the flow of air. The high-pressure flexible air hose and air chuck were acquired at a local auto parts store and installed by the crew. Jason Deerwester, director of golf, Robert “Chilly” Chilman, associate golf professional, Anthony Persaud, acting superintendent, and Davy Eubanks, general manager are the team members behind the repurposed tank. The used air tank cost the club about \$150, the air hose/air chuck cost about \$45 and it took about 15 minutes of labor to install the air hose. GCI

CORRECTION

In the February print edition, we ran images of the scuba air tank with a story already run in the January edition. We regret the error.



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some point in everyone's season or career. Having a large percentage of non-English speaking employees, I needed a way to train my staff in a way they would understand without butchering their native language in the process as I was unfortunately prone to do from time to time.

I grabbed a laser thermometer and a soil sensor. Showing the relationship of how too much soil moisture led to higher soil temperatures than surface temperatures was eye-opening to them. They learned the art of putting on the right moisture in the right place to achieve the desired goals. More importantly, they learned the duration of those effects knowing how much time they had before the practice was needed again. Even in warm-season environments where the grasses can tolerate high ambient conditions, the roots still cannot survive sweltering soil temperatures. So managing our soil moisture throughout the year is critical for achieving the finest conditions. Period.

We are all under the gun for irrigation conservation, as we should be. Those of you that drink bottled water pay more for that per gallon than we do for the highest gas prices – six times more. And those prices are translating onto golf courses more and more every day. Water regulators are learning from companies and individuals like me who have studied the relationship of soil and water to great depths. They are learning that we can manage our water better and the time was yesterday to do so.

We live in a world where the best irrigation managers can still do it better.

I'm happy that the technology of soil monitoring is advancing as we speak and becoming more affordable than ever. We are in a world now where we want solutions and guarantees.

While it is difficult to guarantee anyone's success or the outcome of any particular practice, one guarantee I can certainly make from experience is that the more you know about your soils and the presence of water in your profile, the more successful you will be at determining the best practices to meet the needs of the turf. Don't neglect to understand how water moves through your entire profile. A dry lower profile will lead to increased problems beneath the surface.

After designing a proprietary profile uniformity index that considered soil

"We didn't get any snow, but we didn't get any rain, either." — Brian Vinchesi

type and the positioning of soil solution throughout the profile, I found statistical correlation between a high index (indicating soil moisture near the surface as compared to in the lower profile) and the incidence of root loss, turf thinning and disease outbreak.

Take the time to identify the conditions in your soil and the activity in your turf. Nobody knows your course better than you. Make the right decisions by understanding the needs. **GCI**

Carmen Magro, CGCS, MBA, is chief agronomist/proprietor of Agronomy Management Solutions and a frequent GCI contributor.



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YOU CAN FIX STUPID

I adore Ron White. The former "Blue Collar Comedy" standout lives life however the @#! he wants and says whatever the #@&! he wants. And people are willing to pay \$100 a seat to go laugh at him.

He riffs on all sorts of stuff and I steal lines from him all the time. I'll randomly throw, "They call me Tater Salad," into a speech sometimes just to wake everyone up. His funniest stuff was definitely the "blue" part of Blue Collar Comedy and can't be reprinted here, but there's a billion hours of YouTube clips of him if you want to check him out raw and uncut.

His most famous catchphrase comes from a bit on plastic surgery and the other miracles that allow medical science to repair your parts as you age: "If your eyesight starts to go bad, you can get Lasik surgery and they can give you 20/20 vision at any age. If your hearing starts to fail, they'll put a little device in your ear that makes you hear as good as when you were born. But let me tell you something folks- **you can't fix stupid**. There's not a pill you can take. There's not a class you can go to. Stupid is fo-evah."

You see examples of "you can't fix stupid" every day. Morons texting while driving 80 mph. People in front of you in a checkout line arguing with clerks about a 25 cent coupon that expired months ago. The list is endless.

And the stupid list contains plenty of examples from our happy little business. Stupidity was condoned – even encouraged – for decades during the churn-and-burn days when people were lined up to join clubs or getting up at 4:30 a.m. to snag a tee time at someplace decent in the burbs. One would think that the days of stupid would be over... yet we still find things like:

- Overinvesting in lavish clubhouse improvements (or, god forbid, adding the dreaded "Spa") while shortchanging the golf course capital improvement budget. Is someone more likely to join or play regularly at a particular facility because they have new window treatments or because the irrigation system works well enough to keep the giant green money-maker outside that window alive?

- Daily-fee facilities that still treat customers like dog doo when they walk into the pro shop. I do a lot of "secret shopper" visits to courses and I'm still more likely to get a suspicious

continue. It's the single most common, pervasive example of massive dumbness that hangs like a giant dead albatross around the necks of too many otherwise good facilities.

Ladies and gentlemen (stupid drum roll please!), I give you... the kitchen. Ah yes, the infamous F&B operation. The thing that loses money at 75 percent of U.S. clubs by my educated estimate. It's the massive black hole that never closes, happily sucking dollars away from the large turf-covered ATM machine out front. It's the one element of most facilities that's still operated like it's 19-friggin-52 and

Ladies and gentlemen (stupid drumroll please!), I give you... **the kitchen.**

stare-down from the pimply-faced wannabe pro or craggy old ranger reject behind the counter than, "Hi, welcome to Shady Acres. What can we do for you today?" Why the hell can't we routinely provide the same customer service ethic you find at the average Kwik Shop?

- Presenting a good product poorly. I've seen lots of fine golf courses that just look seedy around the edges. Peeling paint, overflowing trash cans, crappy carts, dirty bathrooms, cigarette butts all over the place: all little things that you remember instead of the quality greens and fairways. Seem picky? Guess who it matters to? Female players. Guess where the growth of the game is coming from? Get it now?

Yes, there are plenty of stupid little things we do to impede our success. I'd have to kill a lot more trees to give you my complete list. But, instead, allow me to present the one, ginormous, *el grande stupido* thing that I am constantly amazed is allowed to

Ward and June Cleaver are still dining at the club four nights a week.

Well, here's what you're gonna do if you're tired of it and you want to actually try to fix stupid: change it. Einstein famously said that the definition of insanity is repeating the same action over and over and expecting a different result. Running a money-losing F&B operation the same way year after year fits that definition neatly.

Outsource it, downsize it, eliminate it or do it right. Make it a unique and spectacular profit center. Forget the chateaubriand and 5,000-bottle wine cellar and convert to wood-fired pizzas or really awesome hot dogs. Just do something, for god's sake. It's stupid... and you can fix it.

The future of golf ain't in the tater salad you're serving to an indifferent bunch of members who are only reluctantly coming into the clubhouse a couple of nights a month to eat up their minimums. The future of golf is golf. **GCI**

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