

# THE CHOICE OF CHAMPIONS



*I purchased the 7316 Verti-Drain about 3 years ago to replace an older model which had provided good results and reliability for over 10 years. As I write this, the 7316 is out on the course aerating greens and tees as part of the course preparations for the 2008*

**British Open Championship.**

*Chris Whittle, Course Manager  
Royal Birkdale Golf Club*

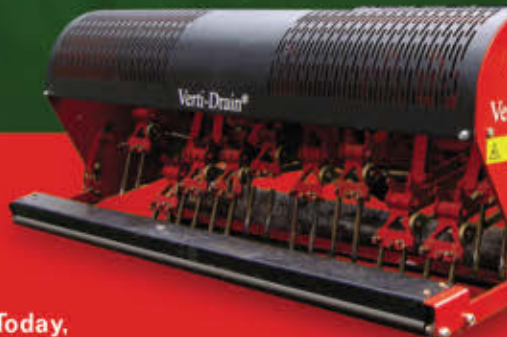
*In addition to hosting this year's **PGA Championship**, Oakland Hills CC South Course also receives about 30,000 rounds of golf annually. The stress we experience on our fairways from this level of traffic has been reduced because of the use of the Verti-Drain 7120. Our fairway turf has improved and the disruption to our members is minimal.*

*Steve Cook, CGCS  
Oakland Hills CC*

*Some members call me "Punch" and my crew thinks that "my cure all" is aerification. Adding oxygen to our soil is one of the most important practices we do as Turf Managers. The Verti-Drain 7120 Aerifier is helping Valhalla Golf Club prepare for the **Ryder Cup**.*

*Mark Wilson, CGCS  
Valhalla Country Club*

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## Assistant rescues woman wrecked in course pond

Greg Leach stands in front of the pond where he rescued a woman days earlier.

Then he saw her move.

"I kicked off my boots and jumped in. The water is about four feet deep," Leach told *Golfdom* the day after the incident. The car door was already open when he got there, but the woman was still wearing her seatbelt. "She was moving and speaking, but she wasn't making any sense."

Leach said he was in the water for less than two minutes, but the 35-degree water was enough to make his lower body entirely numb. The maintenance facility surveillance camera showed headlights going into the pond at 6:30 a.m.

"She sat in there for two, maybe two-and-a-half hours, in chest-deep water," Leach said.

By the time he had her out of the pond, the first police car was on the scene. The woman is expected to recover, thanks to Leach getting her out of the water when he did.

"It was a little bit exciting for what I thought would be a slow Monday morning," Leach said. ■

**S**o much for a slow Monday after Christmas, Greg Leach, assistant superintendent at Lubbock (Texas) CC, said.

Leach arrived at the course around 7 a.m. when one of his crew members came into the shop and told him there was a car in the pond on No. 15.

"I thought he meant someone

stole a golf car and drove that into the pond," Leach said. "I didn't realize it was a real car until I saw it. I was about to call 911 when I saw someone was still in there."

Leach figured the woman in the car was dead. Overnight temperatures had dropped to 25 degrees and there were areas of ice on the corners of the pond.

### Texas A&M Turf professor, wife, killed in car accident

Dr. J. Chris Stiegler, assistant professor of turfgrass science and ecology at Texas A&M, and his wife, Jenny, both died in a car wreck on Christmas Eve near Waco, Texas.

"He was a bright, articulate young man. His best asset was that he worked well with all people – students, faculty, industry. He had a respect for everyone," said Dr. David Baltensperger, head of the department of soil and crop sciences at Texas A&M. "What he brought to our department was a new energy for turfgrass research."

A fund has been established for the couple's infant daughter Emily, the only survivor of the wreck:

Emily Grace Stiegler in care of Citizens State Bank  
4611 West 6th Ave. Stillwater, OK 74074



## Quotable

**"Based on historical trends, on a scale of 1 to 10 with 10 being the busiest, Tuesday, Feb. 8th will be a 1 (at Disney World). The weekend of the 12th and 13th, the parks will only be at 30- and 40-percent capacity. It's really not a bad time of the year to be in Orlando."**

— Seth Kubersky, author of *"Universal Orlando 2011"*



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# GCSAA ends LPGA staff agronomist position

**W**hile the GCSAA is ramping up its new field staff program, it's pulled the plug on another program: the GCSAA/LPGA staff agronomist position, a project the association started in conjunction with the LPGA in July of 2007. John Miller, CGCS, who held the position of LPGA staff agronomist, accepted the job of GCSAA field staff representative for the Great Lakes region last month.

"I'm sad (about the end of the LPGA position), but we accomplished what we set out to do," Miller said. "It was a sign of the times — there was no money to fund the position anymore.

GCSAA decided not to renew the contract."

Miller said his favorite thing about the LPGA position was being able to work with superintendents around the globe to make their golf courses the best they could be.

"I was an extra set of eyes that could help out," Miller said. "But it turned out I learned as much from (the LPGA Tour superintendents) as they learned from me."



John Miller

Miller was wasting no time getting started with his new position. On the day Miller was reached by *Golfdom* in late December, he had already attended an Ohio holiday party for local superintendents.

"I'm really excited about this new position. GCSAA has been working hard on this field staff project, and it seems to be going over well with the membership," Miller said. "I think it'll be fun to take the knowledge that I have — I'm a past chapter president — and working with other chapters to see what their challenges are." ■

# Carolinas golf industry gives to research

The Carolinas golf industry has announced grants of almost \$100,000 to turfgrass researchers whose work helps underpin the game's \$8-billion economic impact in the region. The grants to Clemson and North Carolina State universities are the first generated by Rounds4Research, an annual online auction of tee times across the region.



Nearly 700 tee times were available to the highest bidder in last year's auction. This year's auction runs April 10 to 17 at [www.Rounds4Research.com](http://www.Rounds4Research.com).

"We are extremely pleased and proud to be able to provide this landmark support," said Tim Kreger, executive director of the Carolinas Golf Course Superintendents Association, which administers the program. "The golf industry is suffering in this recession just like the universities but we are determined to be part of the solution."

To share your industry news, email Seth Jones at [sjones@questex.com](mailto:sjones@questex.com).

# Fort Collins CC super earns DSA award

Grant Yaklich, Fort Collins CC superintendent and former Rocky Mountain Regional Turfgrass Association president, was presented with the RMRTA Distinguished Service Award recently. As superintendent of the Links at Sierra Blanca, Yaklich improved the course's *Golf Digest* ranking from 10th to 6th while at the same time reducing water consumption by 54 percent. Yaklich has been in the turfgrass industry for 27 years, with the last 12 years at Fort Collins CC.

Grant Yaklich, Fort Collins (Colo.) CC superintendent



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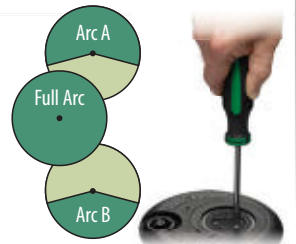
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**I**f we could have had some mulligans for 2010 it might have been a different year. Here are some results from last year's scorecard — a year some would like to forget but many will remember.

First, Mother Nature scored a triple bogey for the schizophrenic bi-polar growing conditions she teed up as 2010 goes down as one of the coldest, hottest, wettest, driest years in decades. Folks with bentgrass or *Poa* turf seemed to suffer the most, but many regions experienced weather that either stressed the turf or kept golfers off the courses — a double whammy for course budgets.

I have to give birdies to the PGA Tour this year for some of the most dramatic finishes in years, even with Tiger being a “no-show” in the winner's circle for the first time in eons. Missing tee times and grounding a club in a “bunker” outside the ropes made for some head-scratching moments.

Can you think of an instance in the past where an official sand bunker was outside the ropes and the gallery was allowed to tromp through it so that a player would have to deal with a rutted-up lie in a bunker? While my sympathy goes out to Dustin Johnson, the local rule sheet did specify that all of Pete Dye's simulated sheep wallows at Whistling Straits were to be considered as bunkers in play under the rules of golf.

There was high drama with Stuart Appleby's final round 59 at Greenbrier and Jonathan Byrd's amazing playoff ace in Las Vegas and the fairy tale endings of the season for Mark Garrigus, Roland Thatcher and Troy Merritt at the Children's Miracle Network Classic at Disney World — where dreams did come true.

Triple bogey to the research team out at Cal Poly who announced smugly to the whole world that concrete was more environmentally friendly than turfgrass. However, when others brought to their attention that they couldn't do simple math and created a 12-fold error in the data, they didn't go as public with any retractions or corrections. The researchers and the media should have called a penalty on themselves and signed a

## Playing Through 2010

BY JOEL JACKSON



THE ECONOMY

CERTAINLY MADE

2010 AN UP-AND-

DOWN ROUND.

corrected scorecard for all to see.

Birdies go to the allied golf associations for continuing Golf Day in Washington, D.C. and showcasing golf's positive economic and environmental impacts and in embarking on the We Are Golf initiative. Superintendents have been toting the bag alone for too long when it comes to charting the yardage on issues facing the golf industry.

It's high time for course owners, club managers, golf pros and golfers to help read the greens and help decide the line on the issues. Many of our golf club's movers and shakers have a lot more influence with local, state and national rules officials than the superintendents.

The economy certainly made 2010 an up-and-down round. Suppliers, superintendents and club managers all had their share of snowmen and Xs. Saving par for the year was a good score.

Double bogies or worse for the EPA for some of their recent rules decisions and actions as they institute new regulations based on a lawsuit settlement decree instead of science and practicality. These non-elected rules officials are running amok and governing without accountability to the people.

Hey gallery, don't be quiet with your comments to your elected officials about reigning in the EPA, before one of our turf management tools are taken away from us.

This year you might have to tee it up using last year's clubs and balls from the shag bag. But if you keep practicing good fundamentals and work diligently on improving your game you can come out a winner in 2011. Happy New Year!

---

*Certified Superintendent Joel Jackson is executive director of the Florida GCSA.*



There was a time when bionutrition, or biofertility as some prefer, was a misunderstood and under-appreciated approach to plant health. But as the scientific community continues to find more evidence of the efficacy of biologically based products, so too are end-users becoming believers.

A report presented  
by LebanonTurf  
January 2011



Free offer on page 4

***There is still a lot that scientists, the academic community and turf managers don't understand about microorganisms and their interaction with soil and turf. But a number of respected members of those groups are convinced of one thing: bionutrition is now proven – and an accepted – form of fertility.***

“They’re misunderstood and often misrepresented by both the academic community and the industry,” Dr. Roch Gaussoin, a professor of agronomy and horticulture at the University of Nebraska-Lincoln, says of the microorganisms that make up the emerging category of bionutrition, or as some prefer, biofertility. “But recent studies are beginning to clarify and substantiate their importance in the soil ecosystem.”

In its simplest form, bionutrition is the enhancement of beneficial microorganisms in the soil to facilitate nutrient availability and uptake. Exactly how that process works through the many different forms of microbial activity has challenged even those who have devoted their careers to plant science.

### ***‘Bugs in a Jug’***

“We can’t see microorganisms without powerful microscopes, and they are extremely difficult to identify and characterize,” Dr. Gaussoin says. “It’s an extremely complex and intricate system that is not widely understood.”

Because of the complexity – and maybe even owing to academic myopia, as the academicians themselves acknowledge – early biologically based products promoted to golf course superintendents and turf managers were largely dismissed by the scientific community. Some in academe and the fertility and turf industries even took to calling the products “bugs in jugs” and labeled the practice “witchcraft.” Their attitude may have been shortsighted, Gaussoin admits. “We’re taught in academics that we’re supposed to be open to new ideas and look at things as problem solvers. But we should have been more open to the potential of these microorganisms.”

*“Exactly how that process works through the many different forms of microbial activity has mystified even those who have devoted their careers to plant science.”*

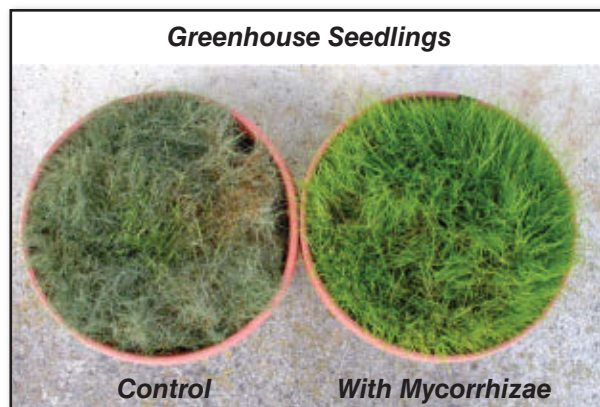
### ***Bionutritional Believers***

Gaussoin’s “awakening,” as he calls it, came when he conducted a study of LebanonTurf’s GREENSMART Enhanced Efficiency Fertilizer™, which is promoted as a product that enhances and extends nutrient performance. “The data (from the study) clearly indicated an equivalent response with reduced rates of fertility,” Gaussoin says. “We found that we could put down 30% less nitrogen and get an equivalent response in terms of color quality and digital analysis.”



Other scientists, whose research has opened up a broader discussion of various forms of biofertility, also are believers:

- Dr. Robert Ames, senior staff scientist at Advanced Microbial Solutions in Pilot Point, Texas
- Mike Amaranthus, associate professor at Oregon State University (adjunct) and the president of Mycorrhizal Applications, Inc, in Grants Pass, Oregon
- Robin Ross, market development scientist, Plant Science Division, at Acadian Seaplants Limited in Dartmouth, Nova Scotia



The team attended a bionutrition conference hosted by LebanonTurf in Cooperstown, New York. Individually and collectively, the scientists vouched for the credibility of the bionutrition category.

“Ten years ago, the mention of ‘mycorrhizal fungi’ to a turf manager might have been met with a blank stare,” says Dr. Amaranthus, whose work has focused on the beneficial associations most grass species form with soil organisms, including mycorrhizal fungi, which evolved over some 400 million years. “Today’s turf managers are much more knowledgeable regarding the benefits of mycorrhizae because research studies have shown us all how these specialized fungi can improve turf health.”

### **Multiple Benefits**

Scientists at the LebanonTurf conference cited benefits of biological products in three categories: plant health, cost-reduction and environmental sustainability.

#### **Plant Health**

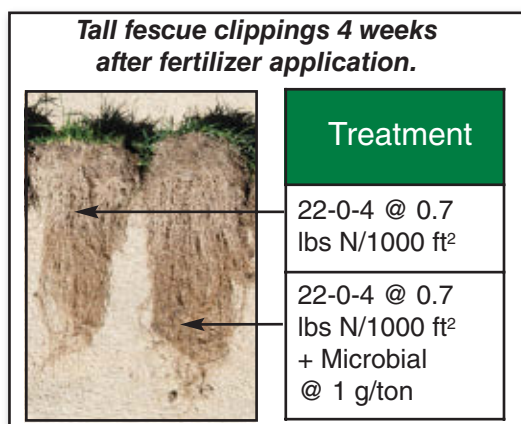
- Disease suppression and thatch decomposition
- Improves root growth/grow-in
- Increases nutrient uptake & turf quality
- Greater fertilizer use efficiency

#### **Cost Reduction**

- Faster grow-in rates
- Reduced grow-in and establishment costs
- Reduced application rates or frequency

#### **Environmental Sustainability**

- Reduction in nutrient loss
- Enhanced nutrient efficiency



# Are you a Believer?



FROM  
**Bugs In Jugs**  
TO  
**Mainstream Fertility**

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In addition to their below-ground benefits to plant nutrition, biological fertilizers increasingly are being recognized for their contributions to the air and water above ground. But it's their potential to sequester carbon gases that really have environmentalists excited, Dr. Amaranthus says.



“Grasses are great for building carbon in the soil, which has implications for global warming. In studies, we've seen that these products can increase the carbon content of treated soil 1% per year, which is huge. Multiply that over millions of acres and there is the potential to reduce 27 % of U.S. carbon emissions.”

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“I see at some point, turf managers are going to receive credit for taking carbon out of the air, where it does damage, and putting it into the soil, where it does all sorts of good things,” Dr. Amaranthus adds.

### ***‘Saved our Cookies’***

But the true test for any product or technology, of course, comes from those who use it to solve real-world problems. Bernie Banas, superintendent at the Leatherstocking Golf Course in Cooperstown, New York, that adjoins the Otesaga Resort Hotel on the shores of Lake Otsego, has been using biological products on his 101-year-old course for 17 years.

“This was probably the hottest, driest summer I've ever encountered, and these biologicals saved our cookies. Our turf just thrived this summer,” Banas said, adding that he battled a tough case of anthracnose when he came to the course. “I haven't seen any anthracnose in a long time. This stuff works – it really does.”

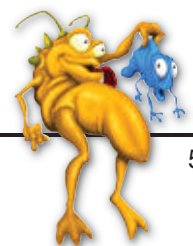
*“This was probably the hottest, driest summer I've ever encountered and these biologicals saved our cookies.”*

### ***Better Understanding***

As they devote more attention to biologicals, scientists are discovering more reasons for their efficacy.

“Most of these microbial soil amendments started out many years ago as individual organisms, or maybe just a couple of organisms that were cultured artificially and then put into a product,” Dr. Ames says. “Many of the early products had very specific functions: enhancement of organic matter decomposition, for example. But as technologies evolved, products with multiple microorganisms were introduced. Later humic acids, plant hormones and other plant stimulants were added to help the organisms survive in the soil.”

The “major evolutionary step,” Dr. Ames says, has been scientists' willingness to look more at products obtained from natural communities of organisms and their biochemical byproducts. “This has been the big step, to identify these



tools to gain a better understanding of how organisms function within the soil and interact with the plant through biochemical processes.”

Dr. Amaranthus, who says he was “trained very conventionally – everything was N-P-K when I was coming along” – calls the process that delivers beneficial mycorrhizae and nutrients to the root system the “plant’s freeway system.”

“Once the mycorrhizal association is established, it provides increased root surface area to support the exchange of nutrients between the fungus and the grass,” Dr. Amaranthus explains. “These filaments form an extensive system that absorbs water and nutrients, which are transported back to the turf root system.”

***Mycorrhizae elements radiating from the root of a typical grass seedling***



### ***Seaweed Benefits Come Ashore***

Although used by farmers for hundreds of years to improve crop production, seaweed (kelp) is a relative newcomer to the discussion of biofertility. *Ascophyllum nodosum* is the most researched and considered the most active of all of the seaweeds. Extracts from this species promote improved root growth that, in turn, can lead to greener, more attractive turf. Ironically, this species of seaweed, which also enhances turf’s ability to stand up to extreme heat and drought conditions, is found exclusively in the cold waters of the north Atlantic, mostly in the Bay of Fundy, off the coast of Canada and Maine.



*Harvesting Ascophyllum Nodosum in the Bay of Fundy.*

As Ross of Acadian Seaplants Limited explains, the Bay of Fundy exhibits one of the world’s largest tidal flexes, meaning that billions of gallons of clean, nutrient-rich water rush into and out of the bay each day. Because the seaweed that grows in the bay is subjected to extreme temperature swings – hot summers, when it sits on dry rocks and bakes in the sun, and cold winters, when it is submerged in extremely cold water and under snow – it developed unique genetic qualities that help it tolerate extreme stress. “When you put extracts from the *Ascophyllum*

*nodosum* species on land plants, they take on some of the same ability as the seaweed to tolerate stress,” Ross says.

In addition to increased stress tolerance, turf treated with seaweed extract exhibits greener color and a more attractive appearance (due to higher amounts of chlorophyll) along with increased root growth, according to Ross.

### ***Questions Remain***

Despite a growing body of scientifically supported knowledge, questions remain concerning biofertility and its role in today’s fertility programs:

- What about elements other than nitrogen? Do biologicals also produce enhanced uptake of other essential elements like phosphorous, potassium and micronutrients?
- What is their longevity and what are their residual effects?
- Are they enhancing the availability or uptake of applied N or of the soil organic N?

“We don’t know all the answers to all the questions,” Gaussoin says. “From an academic standpoint, we want to know these answers. But we also don’t need to know them all to know these products do give equivalent responses with lower N inputs.”

### ***Traditional Fertilizer Complement***

One thing scientists can agree on is: Biological products support and work in a complementary fashion to traditional products.

“We use technologies such as slow-release fertilizers, inhibitors and coatings all in an attempt to keep more of the fertilizer available to the plant for longer periods of time,” Dr. Ames says. “Biological additives are another technology to enhance fertilizer efficiency.”

Biological products “enhance the effectiveness of conventional fertilizers and make those fertilizers work better,” according to Ross. “If you’re not using a biological product, you’re completely missing the ability to bolster the plant’s natural defenses, especially to drought and salinity stress.”

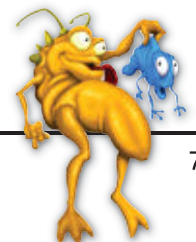


### ***Looking Forward***

Dr. Gaussoin says, “We’ve come a long way from where we were in our belief process. But as we learn more, and manufacturers apply more of the science, I think we will see highly reputable companies producing appropriate and proven biologically active compounds that turf managers can’t live without.”

###

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**D**ecember's extremely cold weather that penetrated much of the United States resulted in bermudagrass going brown in many regions of the southern and southwestern United States. In some cases, dormancy occurred where it rarely does. When turf goes brown we usually refer to it as dormant, but physiologically what happens when a plant goes dormant?

Dormancy is an important mechanism nature has devised where plants can suspend growth for a period of time in response to unfavorable environmental conditions. Dormancy can occur in the summer or winter in response to moisture deficits and temperatures both high and low.

There are levels of dormancy. True dormancy is defined as the point where a plant, if exposed to favorable conditions, will not immediately resume growth. Lesser levels of dormancy can occur in turfgrasses, especially cool season turfgrasses, which are called resting or quiescence stages. Turfgrasses in a quiescent stage of dormancy quickly resume growth with the onset of favorable growing conditions.

For example, on cool season turfgrasses like Kentucky bluegrass, summer dormancy is induced by a lack of moisture. The plant sacrifices its leaves (senescence) and stems, and inactivation of the crown occurs. Upon the arrival of adequate moisture (rainfall, irrigation) the turfgrass resumes growth by crown reactivation. Similarly, bermudagrass will undergo summer dormancy in the absence of moisture for a prolonged period, but resume growth with the arrival of moisture.

Winter dormancy depends on the existing environmental conditions. In tropical climates like south Florida, bermudagrass may not enter dormancy (except for this past year). As you move further north toward the transition zone and colder winters or colder temperatures — especially nighttime temperatures in the Southwestern United States — bermudagrass can reach a stage of true dormancy. Under true dormancy even with a rise in temperature above freezing winter dormancy is not broken.

## The Levels of Dormancy

BY KARL DANNEBERGER



**FOR SOUTHERN SUPERINTENDENTS, TRUE DORMANCY ALLOWS FOR THE POTENTIAL USE OF NON-SELECTIVE HERBICIDES FOR WINTER WEED CONTROL.**

The management advantage of true dormancy for the southern golf course superintendents is it allows for the potential use of non-selective herbicides for winter weed control. Where these herbicides could cause damage to actively growing bermudagrass they are relatively safe on a bermudagrass turf in true dormancy.

Factors that interact with temperature to induce winter dormancy include light, photoperiod, nutritional levels and moisture. Light intensity is important primarily in spring for breaking dormancy. High light intensities promote photosynthesis and growth. Photoperiod or the day length is not fully understood with relation to winter dormancy. It is believed to play a minor role in dormancy but may explain why some cultivars or varieties go dormant sooner than others or resume growth later in the spring. Short day lengths favor zoysiagrass dormancy while increasing the day length reduced dormancy (Zhu, 2008).

Management practices like fertilization and watering can promote dormancy. Withholding or reducing nitrogen and water from a bermudagrass turf can promote dormancy. These practices might be introduced prior to winter overseeding in an attempt to reduce potential bermudagrass competition.

Given the slowing or stoppage of growth associated with dormancy, traffic or wear can cause injury to the turf. When possible, minimize the concentration of foot and golf car traffic. Dispersion of wear will reduce any potential injury to the growing point, which will delay growth when conditions become favorable to break dormancy.

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*Karl Danneberger, Ph.D., Golfdom's science editor and a turfgrass professor from The Ohio State University, can be reached at danneberger.1@osu.edu.*

BY CLARK THROSSELL, PH.D.

# DR. THROSSELL'S TOP 10 MUST DO'S AT GIS

If you want to get the most out of your GIS experience, these 10 events are a must

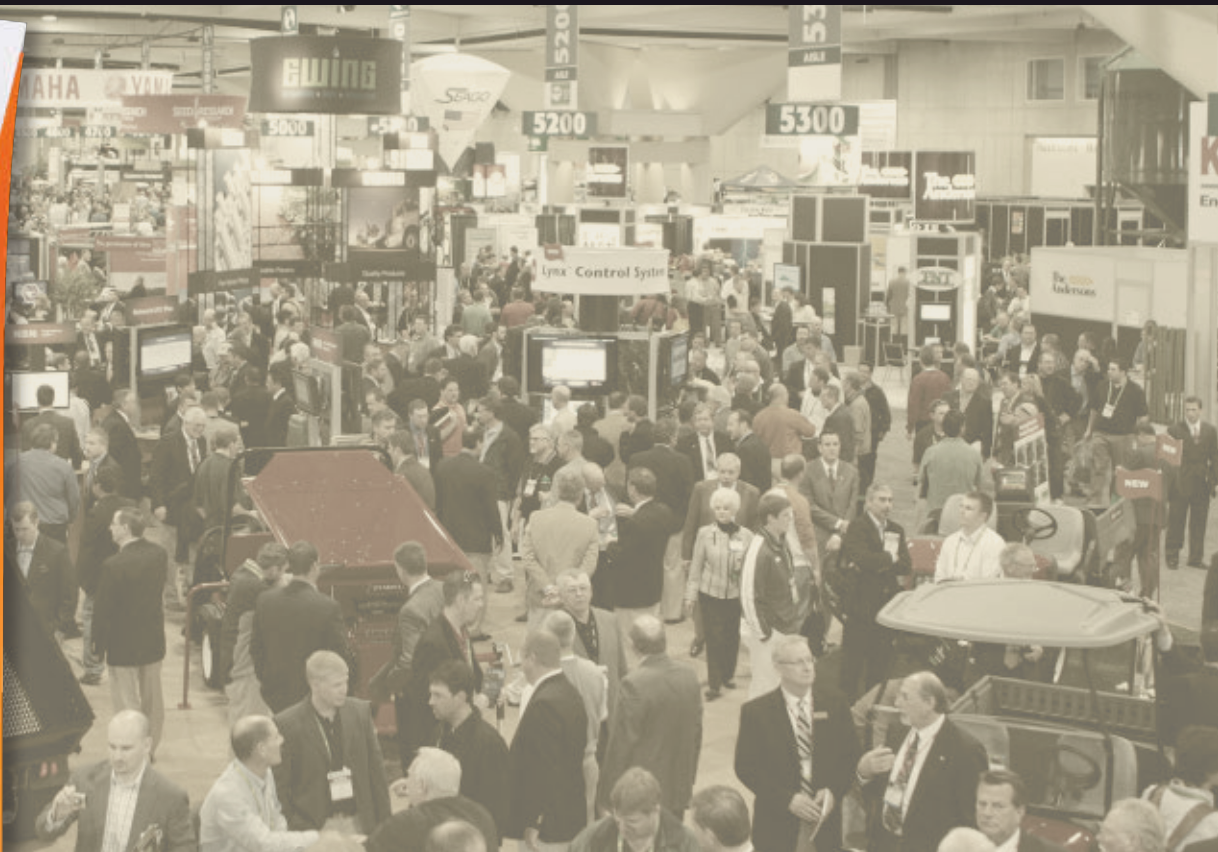
**THIS GIS WILL BE MY 23RD TIME ATTENDING THE SHOW.**

My first show was 1987 in Phoenix early in my career as a professor at Purdue University. These last 9 years I've attended as the director of research for the GCSAA. Dave Kopec, Ph.D., University of Arizona, and I started teaching the Irrigation Water Quality seminar in 1990 in Orlando and have taught it every year since, and we will teach it in 2011.

Time goes fast at GIS, and you need a plan of attack to make sure you experience the most important sessions and events. After 22 years attending GIS I have figured a few things out and wanted to help you cut the clutter and direct you to My Top 10 Must Do's at GIS.

A disclaimer: I'm biased toward agronomics, and I admit it. I enjoy learning the latest and greatest from the top turfgrass experts in the world. And it is agronomic knowledge that makes superintendents valuable to their employers. Granted, you may spend only a small portion of your day on agronomics, but agronomics are the foundation for all that you do in your profession. So, with my disclaimer about agronomics out of the way, give my Top 10 Must Do's at GIS a shot. And let me know how it went.





# 1

## Lessons Learned Come in All Forms

USGA Green Section Session;  
Friday, Feb. 11th, 10 a.m. - noon

FYI — make sure your flight home is after 2 p.m. on Friday so you can stay to the end of this session. This is a can't-miss session for me. The turf tips from the USGA agronomists are on-target, practical and provide solutions to improve the golf course. The pictures shared at the session are always eye-catching and are worth at least a thousand words. The commentary and humor from the agronomists on golfers, the golf industry and golf maintenance practices are worth the time spent. An added bonus is the opportunity to join your colleagues in honoring Dennis Lyon, the 2011 USGA Green Section Award recipient. Dennis is Director of Golf for the City of Aurora, Colo., and a champion of public golf and public golf courses. *(Editor's note: For some insights from Lyon on his time as president of the GCSAA, check out "A view of the top" on page 36.)*

# 2

## Agronomic Solutions: The Latest and Greatest in Turf Management

Tuesday, Feb. 8th, 1 - 3:30 p.m.

For those needing their agronomic fix, this session is agronomics at their best. Five speakers will cover a range of topics that offer something for everyone. The presentations are focused on solutions, not data. This is a chance to learn from the best, and I'm particularly excited to learn from David Minner, Ph.D., Iowa State University and Lane Tredway, Ph.D., North Carolina State University. Dr. Minner has figured out a sound strategy to convert existing cool season grass fairways to low-mow Kentucky bluegrass while keeping *Poa annua* in check. Dr. Tredway has jumped in with both feet to tackle one of the most frustrating problems on putting greens — fairy ring. Lane and his colleagues have made great strides in understanding this disease and how to control it. Drop in and learn a new trick or two to gain the upper hand on fairy ring.

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## 3

### Expanding the Boundaries of Ultradwarf Bermudagrass

8-hour seminar on Monday, Feb. 7th

If you had problems growing creeping bentgrass greens in the transition zone or in the northern part of the warm-season zone in 2010 — and who didn't? — this seminar is a must. You will be in good hands with Mike Goatley, Ph.D., Virginia Tech and Chris Hartwiger and Pat O'Brien, USGA Green Section agronomists in the Southeast region leading the way. The high quality putting surfaces provided by ultradwarf bermudagrass plus the expense and problems with growing creeping bentgrass in such challenging climates should make you think about a conversion to ultradwarf bermudagrass. Ultradwarf bermudagrass putting greens in the southern transition zone and the northern part of the warm-season zone are the answer. Trust me, they are a better fit agronomically than creeping bentgrass and perform their best from mid-spring to mid-fall when most rounds of golf are being played. Mike, Chris and Pat are the experts to get you started. Please be sure to preregister for this seminar to guarantee your seat.

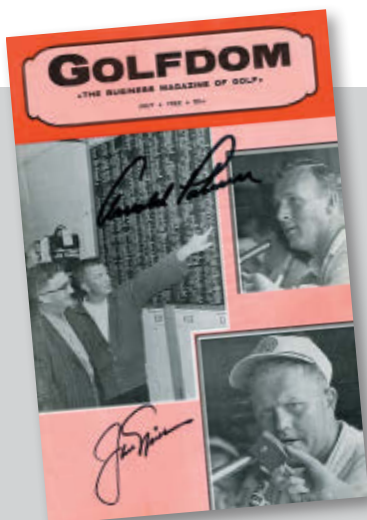
## 4

### Exploring Golf's Carbon Footprint: Part Two

Monday, Feb. 7th, 3:30 - 5 p.m.

This is round two of a popular session from last year. The session was a hot topic then, and may well be again this year, because carbon footprints and the carbon economy are in the news nearly every day. Plus, many golf facilities have been approached by companies wanting the golf facility to assign its carbon credits to that company. The company will then aggregate the carbon credits from numerous golf facilities and sell the aggregated carbon credits. Distribution of proceeds from the sale of the aggregated carbon credits varies by company. The more you know about the subject, the better decisions you can make on behalf of your facility. Take advantage of this session to become more familiar with carbon sequestration science, presented by James Baird, Ph.D., University of California-Riverside, carbon markets, presented by a speaker to be announced and the Top Ten Energy Efficiencies for Golf Facilities, presented by Andrew Staples, Golf Resources Group. Andy's presentation will stimulate you to think about ways to save money on energy at your facility.

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## GOLFDOM GIVEAWAYS: PINEHURST TRIP, AUTOGRAPHED ISSUE

(# 2181) will be the place for any superintendent looking to take a minute and check in with his or her favorite magazine in the industry.

The most exciting thing at the *Golfdom* booth this year will be the chance for one lucky superintendents to win an all-expenses-paid trip to the first ever *Golfdom* Summit at Pinehurst Resort. This ultra-

exclusive event takes place later this year and will only be offered to a select number of superintendents (see Page 63 for more details).

Second prize? A one-of-a-kind autographed copy of the July 1962 issue of *Golfdom* magazine, signed by Arnold Palmer and Jack Nicklaus. This would make for an incredible addition to any golf fan's

memorabilia collection.

We'll also have copies of the magazine, new and old, so if you missed an issue, stop by. We also invite you to say hello to our new editor-in-chief, Seth Jones. Seth will be at the booth interviewing movers and shakers in the industry over both days (check out the *Golfdom* blog, <http://www.golfdom.blogspot.com/>, prior to the show for the schedule), and if your timing is right, he'll probably ask to interview you, too.