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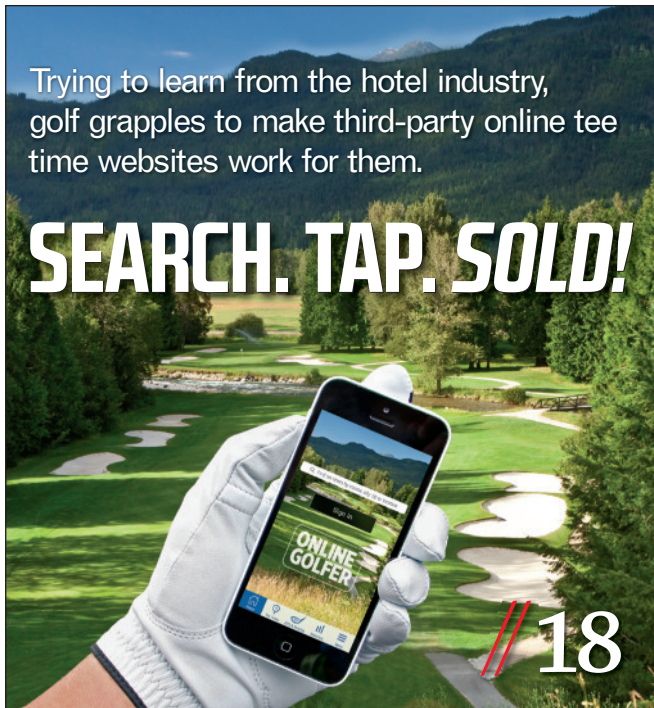
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## SEARCH. TAP. SOLD!



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“You can help your grass-growing brothers and sisters by helping out the Wee One Foundation by visiting **weeone.org**. There are a lot of you out there and collectively we can make a difference.”

**PATRICK ROBERTS**, *Publisher*



*Golfdom* is not the only magazine in our company with a pink cover this month — all of our magazines have a pink cover. Last year we decided as a company that we can do more. North Coast Media, parent company of *Golfdom*, along with our sister publications (*Landscape Management*, *Athletic Turf*, *Pit & Quarry*, *Pest Management Professional*, *GPS World*, *Geospatial Solutions*, *LP Gas* and *Portable Plants & Equipment*) donated a portion of our revenue during October to cancer research. It was almost \$10,000, and we hope to do more this year.

We are trying to do more, and I hope we can inspire you, too.

Cancer hit my family hard this past year. My mom was diagnosed with lung cancer. She had a brain tumor removed. It was the hardest thing I've had to deal with in my life, and I'm not the one who's sick. She's doing great; she's stronger than I could ever imagine. She's not out of the woods, but she's strong and she has a great family supporting her. The best doctors in the world don't hurt either.

For my mom and the many people who are battling cancer, I will do more, and I hope you will too.

Email Roberts at:  
[proberts@northcoastmedia.net](mailto:proberts@northcoastmedia.net).

# Do more

**I**s it fair to ask a superintendent to actually do more? Is there even enough time in the day to cram in one more thing? ¶ You have pressure coming at you from all sides: your boss, the members, the board, your staff, and most important, your family. Your wife and kids or significant other would surely understand, right? They would all understand in this case. ¶ But wait — I'm not arguing for you to do more on your course. Rather *off* your course.

Do more with your kids and loved ones. Do more with your friends and co-workers. No one ever knows when the doctor will say those fateful words and we'll wish we would have done more. It's so easy to get caught up in the day-to-day grind.

My world is entirely different today than it was two years ago. Two years ago, my mom was not sick, and I was given the greatest gift I could ever dream of, a baby girl we named Natalie. So I'm doing more every second of every day. Taking care of myself is an easy one, but I still want to do more.

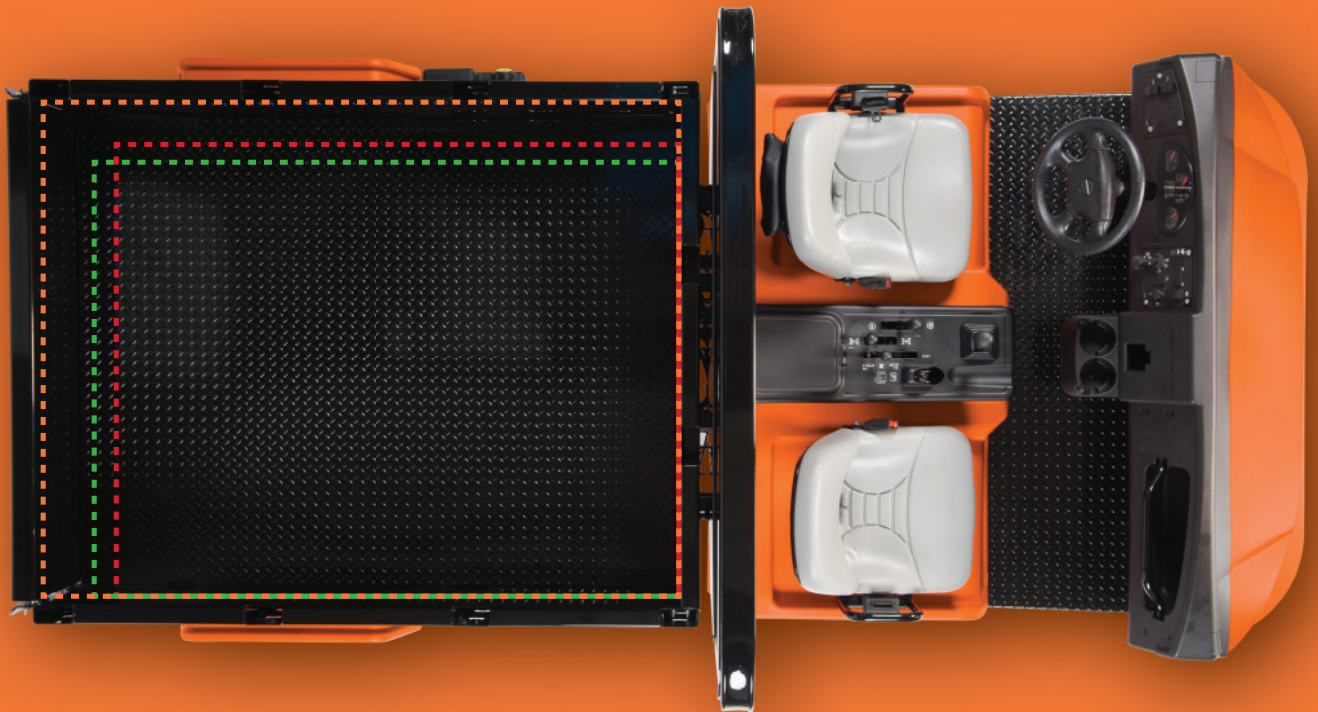
The one word we have all come to know and loathe is cancer. We have all known someone who has succumbed to this terrible disease. It affects everyone. Most of all, it steals from us — our grandparents, mothers, fathers, sisters, brothers, and even children. We all do what we can, right? We all give what we can, whether it's our time or money or our tears.

But I am asking you to do more in the fight against cancer. If each of us commits to one more hour, one more dollar, to run a race, anything... it would make a difference.

On a grassroots level, you have all heard about the Wee One Foundation, and probably even read about it in our October 2014 issue when we profiled Matt Henkel, superintendent at PrairieView GC in Byron, Ill., and how the organization came to his aide when he was diagnosed with brain cancer. You can help your grass-growing brothers and sisters by helping out the Wee One Foundation by visiting **weeone.org**. There are a lot of you out there and collectively we can make a difference.

You may have noticed the pink on our cover this month, as well as on our October 2014 cover. Come October you tend to see a lot of pink. You see it on football and baseball fields, T-shirts, billboards, everywhere. October is National Breast Cancer Awareness Month.

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# Starter

NEWS, NOTES AND QUOTES



## // GOLFDOM SUMMIT

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

**ANNIKA SORENSTAM**



## ANNIKA HEADLINES 5TH ANNUAL GOLFDOM SUMMIT

→ World Golf Hall of Famer, Old Tom Morris Award Winner and now two-time keynote speaker of the *Golfdom* Summit.

OK, so Ms. 59, Annika Sorenstam, probably won't make any space in her autobiography for speaking at the *Golfdom* Summit, but her keynote surely will be a lasting memory for attendees of the industry's most exclusive event.

Now in its 5th year, the *Golfdom* Summit joins 50 superintendents from across the country with 15 sponsors for three days of meetings, networking, speakers, and of course golf, at the Reunion Resort in Orlando, Fla. Other speakers include Greg Nathan, senior vice president of the National Golf Foundation, "The Turf Doc," Karl Danneberger, Ph.D., and *Golfdom* Research Editor Clark Throssell, Ph.D. *Golfdom*

Editor-in-Chief Seth Jones again serves as MC of the event.

Sorenstam wowed the *Golfdom* Summit crowd in 2013 when she spoke to the group about her career, overcoming her fears of failure as well as success, and the work it took to become the greatest female golfer of all time.

"I've met Arnold Palmer before, but I think (meeting Sorenstam at the Summit) trumped that," said 2013 *Golfdom* Summit attendee David Soltvedt, CGCS at Giants Ridge Golf & Ski Resort, Biwabik, Minn. "She exceeded expectations, both in her personality and professionalism."

"We were collectively holding our breath, waiting to hear back from Annika," says *Golfdom* publisher Pat Roberts. "In 2013 she made an outstanding

*Continued on page 9*

## // THAT-A-KID

### MOORE NAMED ROSSI AWARD WINNER

The Golf Course Builders Association of America (GCBA) has named the USGA's Jim Moore as its recipient of the Don A. Rossi Award. Over the last three decades Moore has worked for the USGA in a variety of roles aimed at refining and improving golf course construction practices and standards.



Jim Moore

The Rossi Award is given by the GCBA to honor individuals who have made significant contributions to the game of golf. It is named after Don A. Rossi, who was the executive director of the National Golf Foundation from 1970 to 1983 and executive director of the GCBA from 1984 to 1990.

Moore, a veteran of the United States Air Force and a graduate of Texas A&M, was a superintendent before joining the USGA. He is the current director of the USGA Green Section's Education Program, a former president of the Texas Turfgrass Association and thankfully for us, a friend of the magazine's.

## // BOWE KNOWS SUCCESS

### BOWE NAMED ANDERSONS CEO

The Andersons has named Pat Bowe, formerly corporate vice president of Cargill, as the successor to Mike



Pat Bowe

Anderson as president and CEO of the company. Anderson will remain as the company's chairman of the board.

Bowe has 35 years of experience in the agriculture sector, with extensive experience in leading large organizations in commodity and futures trading, acquisitions, process improvement and maintaining strong customer relationships.

"We are pleased to name someone of Pat's caliber as our next CEO of The Andersons," said Mike Anderson. "Pat is an accomplished executive with a proven track record of delivering results."

## //CHANGES AT NGCOA

# Karen named NGCOA CEO; Hughes retires, Tinkey resigns

➔ Jay Karen, the former director of partner relations and membership at the National Golf Course Owners Association from 1997 to 2007, has been named CEO of the organization. Karen most recently was the CEO of Select Registry, a collection of fine inns, bed and breakfasts and boutique hotels.

Karen replaces Mike Hughes, who announced in January that he would step down from his post of CEO. In his 25 years as CEO, Hughes increased membership of the NGCOA, raised the stature of the organization and also helped create the Golf Industry Show.

Mike Tinkey, who was deputy chief executive officer of the NGCOA, announced his resignation from the association. He worked for the organization for 24 years. "The timing is excellent for me to advance my long-time business interests in golf, sports and hospitality in other venues where I can make a difference, while taking time to engage in family land and business interests," Tinkey said to *GolfBusiness News*.



Jay Karen

"Jay Karen brings fresh, new ideas, motivation and a profound love of golf to the NGCOA," said Matthew Galvin, president of the NGCOA, in a press release. "While we look forward to a smooth transition and exciting changes, we are grateful to Mike Hughes for his expert leadership, as he's leaving the organization at a high point."

## GO FIGURE

# 13,436,961

NUMBER OF ROUNDS BOOKED BY GOLFNOW IN 2014.

Source: GolfNow|NBC Golf

Continued from page 8  
event even better for our attendees, both superintendents and sponsors. To have a legend of the game speaking to such a small, intimate group is a real privilege."

A handful of spots for the event, which takes place Dec. 1-4, remain

open. Interested superintendents can apply at [GolfdomSummit.com](http://GolfdomSummit.com). This year's sponsors include: Air-O-Lator Corp., Air2G2 Aeration, BASF, Civitas, Cushman, Holganix, Jacobsen, Pearl Valley, Quali-Pro, SipcamAdvan, Smithco, Stevens Water Monitoring Systems and Turfco.

## //ON THE MOVE

### DOW AGROSCIENCES ADDS EXPERTISE

Dow AgroSciences Turf & Ornamental announced that Chris Moyer has been named marketing communications manager supporting both the T&O and Pest Management businesses. He joined Dow AgroSciences in 2011 as a T&O sales representative covering eastern Pennsylvania and New Jersey. Moyer also worked as a superintendent for more than 20 years. He has a bachelor's degree in agronomy from The Ohio State University and a master's degree in business administration from Tiffin University.



Chris Moyer

Moyer is replaced by Tara Beauregard, who joined the Dow Chemical Co. in



Tara Beauregard

2011 as a production scheduler, and recently worked as a production planner for Dow AgroSciences. She earned a master's degree in strategic management from Davenport University and served in the U.S. Armed Forces as a logistical specialist for six years.

## //JOB WELL DONE

### A HALL OF FAME CAREER

Mike Kiely, a friend of *Golfdom*, started working at Canterbury CC, Beachwood, Ohio, in 1966 and has worn many hats, but he is best known as the caddy master.

Kiely has mentored thousands of caddies through the years at Canterbury CC, helping to instill such values as discipline, responsibility and respect for the game. For his efforts, he was inducted into the Northern Ohio Golf Association Hall of Fame in 2007 and the Professional Caddies Association's Caddie Hall of Fame in 2009. Just this year he was inducted into the Ohio Golf Hall of Fame.

Along the way, he got to watch some great golf at Canterbury, including the 1973 PGA Championship, Jack Nicklaus' 14th major title, the 1979 U.S. Amateur, four Senior Tournament Players Championships, the 1996 U.S. Senior Open and the 2009 Senior PGA Championship.

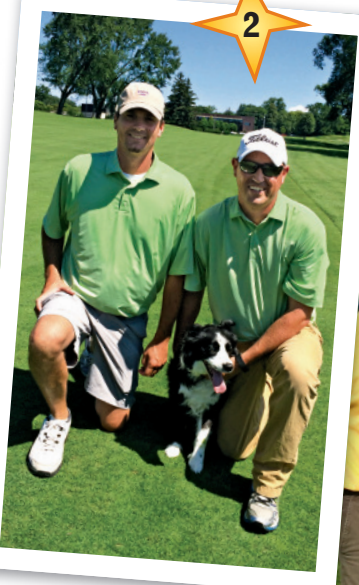
We here at *Golfdom* tip our caps to Mr. Kiely. Your reads are always true, both on greens and in life.

# Golfdom Gallery



1

**1 It's a small world after all** While Steve Galperin (right), North Coast Media's VP of Finance & Operations, was golfing in Orlando he saw our old friend Bob Cook (left), superintendent at Walt Disney World Golf.



2

**2 Supers' BFFs** Edina (Minn.) CC Superintendent Brandon Schindele (right) with his two best friends, Senior Assistant Superintendent Jeff Mold and course dog Lacey.



3

**3 Lot of Boilermakers** Aaron Patton, Ph.D., turfgrass scientist, Purdue University, Clark Throssell, Ph.D., *Golfdom* research editor, Quincy Law, Ph.D. candidate, Purdue University and Dan Weisenberger, research agronomist, Purdue University, pictured at the Purdue University William H. Daniel Turfgrass Research and Diagnostic Center.



4

**4 Bandon together** Aaron Huntley, superintendent, Bandon Trails and Bandon Preserve; Ken Nice, Director of Agronomy, Bandon Dunes Resort; Fred Yates, CGCS, Old Macdonald; Jeff Sutherland, superintendent, Pacific Dunes, and Jeff Wilson, superintendent, Bandon Dunes, took this photo while we visited the Oregon golf resort.

**5 Nice suits** *Golfdom*'s Craig MacGregor (left), national account manager, and Bill Roddy (right), associate publisher, with Jeff Leuzinger, sales manager, Healthy Grow.



5

**6 When in Rome** While visiting Healthy Grow HQ, Bill Roddy HAD to sit in an egg-shaped chair.



6

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“Annual visits to state capitals are great, but we need to be more forcefully present locally to balance the information legislators are getting.”

**JOEL JACKSON**, *Senior Contributing Editor*

# Communications: preventive maintenance

**T**here was an interesting comment online recently about how some folks refer to our most invasive cultural practices as “evils” because they mark up the playing surface for a week or two, often less. Golfers hate to see those big aerifiers, verticutters and topdressers roll out in late summer when the turf is most active and recovery happens sooner.

A superintendent eloquently explained that it wasn't an “evil,” it was preventive medicine, like getting an annual physical or dental exam to keep you functioning properly, and that folks need to change that negative mindset into a positive outlook. I think more state chapters across the country need to dedicate themselves to ongoing seasonal government relations programs to ward off the negative consequences of our perceived “evil” practices.

If I've learned one thing over my years of association work, it's that naysayers and environmental extremists are well known by our legislators. They make it a point to carp and complain about agriculture and green industry practices all the time and are fre-

quent visitors of city, county, state and federal lawmakers. Their advocacy is year around, not just annual.

A lot of these folks have nothing else to do except join a cause, while superintendents have a pretty demanding job day in and day out. However, we can and must do better. I give kudos to GCSAA for the recent hiring of Robert Helland to be that 24-7 guy at the national level. Chava McKeel, GCSAA director of government relations, has been blazing inroads in D.C. for superintendents for years, and she's widely respected, professional and organized. Having Helland on full time can only strengthen the government relations team on the national level.

However, the old saying

that “all politics is local” means that state and local chapters also need to ramp up their game. Annual visits to state capitals are great, but we need to be more forcefully present locally to balance the information legislators are getting. We need meaningful laws that don't penalize green industry businesses, which contribute more than lawmakers may realize to local economies and environmental quality.

Reaching out to allied green industries like agriculture grower associations, landscape, nursery and sports turf associations can be most helpful in lobbying and educating legislators at all levels of government. Most of these organizations already have established working relation-

ships with lobbyists or have direct contact with lawmakers. When attending annual meetings and government sessions at all levels it's interesting to introduce myself as being with the Florida Golf Course Superintendents Association, and to watch the reaction of the politician. So many of them don't get that we're part of a business that makes huge contributions to the economy at all levels. I like to tell them that golf is essentially “urban agriculture,” especially when water quality and conservation issues are at stake.

The biggest disappointment for me in the whole government relations arena is the absence of the golfers themselves when it comes to speaking out about the positives of golf course green spaces and the wildlife they see on the course. Instead, the vocal golfers mostly seem to be like the course condition complainers I mentioned earlier.

Do the best job you can of communications and “show-and-tell” about the need for seasonal turf maintenance programs. The growth of superintendent blogs have resulted in several comments concerning club members who have called out the complainers and supported the superintendent.

Communications at all levels of golf and government operations is a never-ending job — a necessary evil — just like aerifying, verticutting and topdressing!

**Joel Jackson, CGCS-Ret.**, is senior contributing editor for *Golfdom*. Email him at [flrgn@aol.com](mailto:flrgn@aol.com).



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“If there’s a way to make being on a golf course as the sun is starting to set on a summer evening any better, this is it.”

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

## Best evening ride ever

Anyone who has kids knows that they ask a ton of questions, from the profound (Why are there wars?) to the decidedly not (How does your bottom make poop?). Other than correcting my 3-year-old son’s underwhelming grasp of the human digestive system, I’m not sure I adequately answer many of them.

Fortunately for me, my kids recently have become interested in my job. So while I don’t know why blue and yellow make green, I can at least answer their questions about the golf course. (Although if they ever ask me why people don’t repair ball marks, I’ll once again be clueless.)

In addition to being more curious about my job, they’ve become obsessed with wanting to ride around the course with me. So the other day I strapped their bike helmets on them, plopped them on the cart, told them to try to keep it down, and away we went. As soon as the cart started moving, they completely lost their minds but fortunately did so in a relatively quiet manner. I think

it was all they could do to keep their laughter and their “faster, faster” chants to a respectable level, but they somehow managed to do so.

If there’s a way to make being on a golf course as the sun is starting to set on a summer evening any better, this is it. It was absolutely awesome seeing how happy it made them. I figured they would like it, but I had no idea how much. It’s honestly the most fun I’ve ever had on a golf course... by far.

They were blown away by everything — how short the playing surfaces were cut, how white the sand was, the hawk we saw doing work on an unfortunate rodent of some sort — literally everything amazed them.

One of the coolest things about it was to observe the differences in what they saw and how it aligns with their personalities.

My 5-year-old daughter is definitely a girly girl, and she loved the beauty and peacefulness of being out there on a perfect evening with virtually no one else around. She’s apparently also not a big fan of weeds, as I learned when we walked past a patch of clover and she said, “Umm, Daddy, there’s some weeds. Aren’t you supposed to get rid of those?” Thanks for noticing, sweetheart.

On the other hand, my son, who would dive head first into a mud hole without hesitating, loves sitting on the equipment and wants to

know how everything — and I mean everything — works. I think he asked me to open every valve and satellite box we passed. He also “cut down” a few trees that he thought needed to go, so he might have a future in this business.

When our daughter was born, people always told us to make sure we enjoyed the ride because they grow up so fast. I might’ve thought I understood what they were talking about, but it wasn’t until this fall when she started kindergarten that I truly knew what they meant. All of the developmental milestones up to this point were happy occasions, but her first day of kindergarten was one of the most bittersweet moments I’ve ever experienced, because for whatever reason, it was then that it really hit me that she’s growing up. In a couple more years that likely will feel like only a couple of months, her brother will follow.

That’s why I think that evening ride had such an impact on me. We don’t have forever to forge bonds and make memories with our kids.

I imagine the days of them wanting to ride around the course with dad will come to an end at some point, but before it does I’m going to enjoy every minute of it. I hope they carry memories of our evening rides for the rest of their lives. I know I will.

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



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## Randy Gatlin

### 1ST ASSISTANT SUPERINTENDENT

Turtle Point Yacht and Country Club  
Killen, Ala.

*Turtle Point Yacht and Country Club is a Robert Trent Jones Sr. design that sits along the banks of the Tennessee River and Wilson Lake, and is neighbors with its members' water toys in the club's marina. It has been the host site for the SEC Championship and the Southern Amateur, but the club also takes pride in protecting wildlife. Turtle Point was the first course in Alabama to be a designated of Certified Audubon Cooperative Sanctuary, and it has set 35 acres aside to manage as wildlife habitat.*

*Randy Gatlin, who has been working on golf courses since he was a teenager, serves at Turtle Point's 1st assistant superintendent. The Auburn University graduate likes to take things day by day on his way to his dream job as a superintendent at a well-known course.*

**WHERE DID YOU GO TO SCHOOL?** Auburn University. I went into their four-year Landscape Horticulture program.

**WHO ARE SOME OF YOUR MENTORS IN THE INDUSTRY?** I would say Ricky Huey at Sunbelt Golf Corp. I was with them for 17 to 18 years. I'm still getting to know my boss at Turtle Point, Glen (Junkin), in a professional sense. I've known him for years, but I've recently started working for him, but I've already learned a lot from him.

**WHAT GOT YOU INTO THIS PROFESSION?** My family moved from the city out to the country, right along Colonial Golf Course (Meridianville, Ala). So it was just where everybody went to work for the summer. When I was 14 I went

to work and once I started to learn about it, I knew I wanted to do it.

**ANY SURPRISES IN THE INDUSTRY?** No, not really. I guess simply because I was in it at such a young age, I didn't have any expectations. That was the kind of life I just kind of put myself into. As a teenager you don't really have any expectations. When I first started out I wasn't on the golf course, I was taking care of the carts. All of the things that a lot of people dread doing now, including myself, were the things that I really enjoyed. Going out and hand-raking bunkers and cutting cups. When you're 14 you are like, "man that looks like fun, being on the course every day."

**IN TEN YEARS YOU WOULD LIKETO BE \_\_\_\_\_?**

I would like to be the superintendent at a well-known facility. I did 18 years in public golf and I was always scared off by the horror stories of private golf. And I'm in private golf now and there are a lot of things I enjoy about it.

**IF THERE'S ONE THING AT MY JOB I'M REALLY GOOD AT, IT'S \_\_\_\_\_?**

Probably taking the big picture and relating it down to a day-to-day plan and figuring out the best way to get there. Most goals aren't going to happen in day or a week, even in a month. You have to peck away at them, and it takes a good organized manager to do something like that.

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# What are online tee times doing for your course?

Trying to learn from the hotel industry, golf grapples to make third-party online tee time websites work for them

BY GRANT B. GANNON



They go by many names, are run by companies big and small and reach U.S. golf courses in states from the Atlantic to the Pacific — and they're all accessible via smart phone.

How big a business is selling third-party online tee times? Last year, 13 million rounds were booked via GolfNow alone.

But are these online tee time brokers helping keep golf courses open or are they holding them hostage?

## Desperate for marketing

Relationships between golf courses and sites such as GolfNow.com, Supreme Golf, TeeTimes.com, LastMinuteGolfer.com and TeeOff.com are ultimately give and take. Golf courses can gain exposure by being on a website listing and in emails sent to golfers who may have never heard of a course before. The third-party booking agents in turn receive a service fee from golfers to book the round on their website. They are also guaranteed an agreed amount of rounds from the golf course that they can sell at an agreed-upon percentage below a course's rack rate (what GolfNow calls "Hot Deals.")

"My mindset was if there is an opportunity to barter and receive services like GolfNow's marketing platform it was worth the trade-off," says Terry O'Leary, director of golf at Southwind Golf Club in Fairburn, Ga. "Indeed it was; over 60 percent of our tee times were being booked through their website."

O'Leary has been with Southwind GC since it opened and when they started its contract with the third-party online booking agent GolfNow, owned by NBC/Universal, in May 2011.

As a new course in the metro Atlanta area during the recession, and with an ownership

*Continued on page 21*



We create chemistry

## 2016 Early Order Program – Turf US

Get the healthy turf your course needs for 2016 with savings you can bank on right now. EOP is as simple as 1-2-3.

### 1 Order Early

Earn up to 33% more rebate dollars by ordering in October when rebate levels are highest.

### 2 Order Easy

Rebates start with a \$1,500 spend. Specially designed cubes deliver convenience and 10% instant savings.

### 3 Order Innovation

Purchase **Lexicon® Intrinsic®** brand fungicide or **Xzemplar®** fungicide and boost your rebate an extra 1%.

**1. Order Early Savings:** Earn up to 33% more rebate dollars when you order in October.

Purchase Total	Oct. 1st - 31st Rebate	Nov. 1st - Dec. 11th Rebate
\$1,500 - \$6,999	4%	3%
\$7,000 - \$19,999	7%	5%
\$20,000 +	10%	7%

Save now, pay later!

June 6, 2016 terms on all Agency products.

**2. Order Easy Savings:** Get 10% instant savings on all specially designed cube solutions.

Cube	Ideal for Turf Type	Cube Contents	Acres Covered	Use Area	Agency Price
<b>Mini Your Cube</b> <i>A plant health solution for greens along with a rotation partner.</i>	Cool & Warm	1 Cs – <b>Curalan® EG</b> fungicide (12x 2.75 lb)	12	Greens	\$ 5,996.00
		3 Cs – <b>Lexicon® Intrinsic®</b> brand fungicide (4x 21 oz)	12		
<b>New Innovation Cube</b> <i>Our newest disease technology for the ultimate greens program.</i>	Cool & Warm	3 Cs – <b>Xzemplar®</b> fungicide (4x 11.4 oz)	12	Greens	\$ 6,974.00
		3 Cs – <b>Lexicon Intrinsic</b> brand fungicide (4x 21 oz)	12		
<b>Plant Health Cube</b> <i>A complete solution for plant health on greens and tees.</i>	Cool & Warm	1 Cs – <b>Honor® Intrinsic</b> brand fungicide (1x 36 lbs)	12	Greens	\$ 8,231.00
		3 Cs – <b>Lexicon Intrinsic</b> brand fungicide (4x 21 oz)	12		
<b>Deep Freeze Cube</b> <i>The ultimate snow mold solution for greens and fairways.</i>	Cool	1 Cs – <b>Curalan EG</b> fungicide (12x 2.75 lb)	12	Greens & Fairways	\$ 12,594.00
		3 Cs – <b>Lexicon Intrinsic</b> brand fungicide (4x 21 oz)	12		
		2 Cs – <b>Trinity®</b> fungicide (2x 2.5 gal)	30		
		1 Cs – <b>Insignia® SC Intrinsic</b> brand fungicide (2x 2.5 gal)	21		
<b>Power Within Cube</b> <i>Effective plant health for greens and fairways.</i>	Cool	3 Cs – <b>Lexicon Intrinsic</b> brand fungicide (4x 21 oz)	12	Greens & Fairways	\$ 14,754.00
		2 Cs – <b>Insignia SC Intrinsic</b> brand fungicide (2x 2.5 gal)	42		
<b>Honor America Cube</b> <i>Plant health on fairways to control a broad array of diseases.</i>	Cool	4 Cs – <b>Honor Intrinsic</b> brand fungicide (1x 36 lbs)	48	Greens & Fairways	\$ 17,498.00
		4 Cs – <b>Curalan EG</b> fungicide (12x 2.75 lb)	48		
<b>More Resilience Cube</b> <i>A foundational solution for greens and fairways.</i>	Cool	2 Cs – <b>Xzemplar</b> fungicide (2x 114 oz)	40	Greens & Fairways	\$ 20,939.00
		1 Cs – <b>Emerald®</b> fungicide (50x .49 lb)	50		
		4 Cs – <b>Curalan EG</b> fungicide (12x 2.75 lb)	48		
		3 Cs – <b>Lexicon Intrinsic</b> brand fungicide (4x 21 oz)	12		
<b>Defend Your Fairways Cube</b> <i>Season-long dollar spot control for fairways.</i>	Cool	5 Cs – <b>Xzemplar</b> fungicide (2x 114 oz)	100	Fairways	\$ 25,865.00
		5 Cs – <b>Curalan EG</b> fungicide (12x 2.75 lb)	60		
		3 Cs – <b>Emerald</b> fungicide (10x .49 lb)	30		
		2 Cs – <b>Trinity</b> fungicide (2x 2.5 gal)	30		
<b>Complete Cube</b> <i>Your total solution for disease control, course wide.</i>	Cool	3 Cs – <b>Xzemplar</b> fungicide (2x 114 oz)	60	Greens & Fairways	\$ 28,161.00
		3 Cs – <b>Emerald</b> fungicide (10x .49 lb)	30		
		5 Cs – <b>Curalan EG</b> fungicide (12x 2.75 lb)	60		
		2 Cs – <b>Trinity</b> fungicide (2x 2.5 gal)	30		
		3 Cs – <b>Lexicon Intrinsic</b> brand fungicide (4x 21 oz)	12		
		1 Cs – <b>Honor Intrinsic</b> brand fungicide (1x 36 lbs)	12		
<b>Southern Weed Surrounds Cube</b> <i>A strong solution for southern green surrounds.</i>	Warm	15 Bg – <b>FreeHand® 1.75G</b> herbicide (1x 50 lb)	5	Green Surrounds	\$ 2,176.00
		2 Cs – <b>Drive® XLR8</b> herbicide (4x .05 gal)	NA		
		2 Cs – <b>Basagran® T&amp;O</b> herbicide (2x 1 gal)	NA		

## BASF 2016 EOP Qualifying Agency Products:

Qualifying Agency Products	Package	Agency Price	Quantity	Total Dollar Purchases
Complete Cube	Cube	\$ 28,161.00		
Deep Freeze Cube	Cube	\$ 12,594.00		
Defend Your Fairway Cube	Cube	\$ 25,865.00		
Honor America Cube	Cube	\$ 17,498.00		
New Innovation Cube	Cube	\$ 6,974.00		
Mini Your Cube	Cube	\$ 5,996.00		
More Resilience Cube	Cube	\$ 20,939.00		
Plant Health Cube	Cube	\$ 8,231.00		
Power Within Cube	Cube	\$ 14,754.00		
Southern Weed Surrounds	Cube	\$ 2,176.00		
<b>Emerald®</b> fungicide	10x 0.49 lb	\$ 1,479.80		
<b>Emerald</b> fungicide	50x 0.49 lb	\$ 6,443.50		
<b>FreeHand® 1.75G</b> herbicide	1x 50 lb	\$ 91.50		
<b>FreeHand 1.75G</b> herbicide ½ truckload ◊◊	8 pallets	\$ 27,680.00		
<b>FreeHand 1.75G</b> herbicide full truckload ◊◊	16 pallets	\$ 52,160.00		
<b>Honor® Intrinsic®</b> brand fungicide	6x 3 lb	\$ 2,466.00		
<b>Honor Intrinsic</b> brand fungicide	1x 36 lb	\$ 3,672.00		
<b>Insignia® SC Intrinsic</b> brand fungicide	4x 30.5 fl oz	\$ 1,605.52		
<b>Insignia SC Intrinsic</b> brand fungicide	4x 122 fl oz	\$ 6,002.40		
<b>Insignia SC Intrinsic</b> brand fungicide	2x 2.5 gal	\$ 5,460.00		
<b>Lexicon® Intrinsic</b> brand fungicide	4x 21 oz	\$ 1,824.48		
<b>Pendulum® AquaCap</b> herbicide	1x 15 gal	\$ 705.00		
<b>Pendulum AquaCap</b> herbicide bulk	110 gal	\$ 5,170.00		
<b>Pendulum AquaCap</b> herbicide bulk	220 gal	\$ 10,340.00		
<b>Tower</b> herbicide <b>NEW SIZE!</b>	2x 2.5 gal	\$ 1,425.00		
<b>Xzemplar®</b> fungicide	2x 114 oz	\$ 3,296.88		
<b>Xzemplar</b> fungicide <b>NEW SIZE!</b>	4x 11.4 oz	\$ 758.33		

Subtotal (A):

## BASF 2016 EOP Qualifying Non-Agency Products:

Qualifying Non-Agency Products	Package	Redemption Value**	Quantity	Total Dollar Purchases
<b>Admiral®</b> lake colorant ◊	4x 1 gal	\$ 168.00		
<b>Black Onyx</b> lake colorant ◊	4x 1 gal	\$ 305.76		
<b>Curalan® EG</b> fungicide	12x 2.75 lb	\$ 1,291.95		
<b>Drive® XLR8</b> herbicide ◊	4x 0.5 lb	\$ 283.25		
<b>Green Lawnger</b> turf colorant ◊	2x 2.5 gal	\$ 292.95		
<b>Pendulum AquaCap</b> herbicide ◊	2x 2.5 gal	\$ 325.00		
<b>Pillar® G Intrinsic</b> brand fungicide	30 lb	\$ 69.00		
<b>Pylex®</b> herbicide	4x 8 fl oz	\$ 1,980.00		
<b>Siesta®</b> insecticide fire ant bait	15 lb	\$ 185.06		
<b>Transition HC</b> dark turf colorant ◊	4x 1 gal	\$ 616.00		
<b>Trinity®</b> fungicide	2x 2.5 gal	\$ 1,017.19		
<b>Turf Mark®</b> spray indicator – blue ◊	2x 2.5 gal	\$ 220.50		
<b>Turf Mark®</b> spray indicator – green ◊	2x 2.5 gal	\$ 268.10		
<b>Vision Pro HD</b> turf colorant ◊	4x 1 gal	\$ 548.80		

Subtotal (B):

\* The end user's rebate percentage is not cumulative, with the exception of the Innovation Savings.

\*\* Redemption value used for non-agency products.

◊ Must be purchased in case increments on one invoice.

◊◊ **FreeHand 1.75G** herbicide half and full truckloads must be ordered and purchased within one transaction to qualify for special pricing.

**Additional Program Details and Qualifications:** All Agency products sold are on behalf of BASF. All sales are final. No returns. Rebate will be based upon reported sales from the BASF authorized agent(s). This program applies only to qualified end-user professionals (golf, greenhouse, L&L, nursery, ornamental, sports turf, sod farms, municipalities, and parks & rec). Multiple sales orders for one customer are cumulative and will qualify if ordered between program dates and from any authorized BASF agent(s). A qualifying October purchase of at least \$1,500 locks end user to October rebate column for duration of the Early Order Program. Non-qualifying October purchases of less than \$1,500 will be counted toward any purchases from November 1 - December 11 and will be rewarded at the November 1 - December 11 percentage. Products must be purchased, invoiced and delivered between the program dates. No exceptions. The redemption value of qualified non-agency products will be used to determine end user total purchase and rebate earned. End user must be in good standing with agent to receive special promotional terms. All agency terms offered at the agent's discretion. All agency products invoiced between October 1, 2015 and January 31, 2016 will receive June 6, 2016 terms for the end user. All agency products invoiced after January 31, 2016 will receive net 60-days for the end user. Terms for qualifying non-agency products are determined by a BASF authorized distributor. Qualified end users will receive a rebate on the total invoiced dollar amount (excluding taxes) of qualified products purchased from an authorized BASF T&O agent. All rebates will appear as a credit on the end user's account with the agent who processed the order. EOP credit will become available on 7/31/16 and can be applied only to new purchases of agronomic inputs or related products. If an end user purchases from more than one agent, the rebate will be applied to the respective agent based on percent purchase from each agent. All products may not be registered for sale or use in all states. Please check with your state or local Extension Service.

Always read and follow label directions.

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## 3. Order Innovation Savings

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Intrinsic® Brand Fungicide

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## Xzemplar®

Fungicide

**Stop dollar spot in its tracks.**

**Xzemplar** fungicide provides ultimate control over dollar spot. Be sure to include three fairway applications in your EOP order.

## Calculate your rebate

Add A + B from order form to determine rebate percentage in chart below.

**TOTAL PURCHASE \$ (C)**

Purchase Total (C)	Oct. 1 - Oct. 31, 2015 Rebate*	Nov. 1 - Dec. 11, 2015 Rebate*	Innovation Savings Rebate %
\$1,500 - \$6,999	4%	3%	1%
\$7,000 - \$19,999	7%	5%	1%
\$20,000 +	10%	7%	1%


Oct. or Nov. - Dec. 11, 2015 Rebate %	
+1% Innovation Savings (if applicable)	
<b>TOTAL REBATE %</b>	
Total Rebate %	
x Total Purchase (C)	
<b>TOTAL EOP REBATE</b>	

## New! The EOP Order Planner

- Calculates your savings
- Converts your selections into applications
- Print or email to your sales rep

Visit [betterturf.basf.us/eop](http://betterturf.basf.us/eop)





The recession delayed Southwind Golf Club's opening until 2011. The group that owned it at the time decided to turn to GolfNow for marketing.

**“YOU HAVE TO BE CAREFUL. YOUR STRATEGY CAN'T BE WHAT'S HAPPENING EVERY MINUTE IN THE MARKETPLACE.”**

*Continued from page 18*

that didn't understand golf operation or marketing, Southwind GC turned to GolfNow for publicity.

The course's ownership decided to make no initial capital investments in marketing, and its lone campaign during the grand opening was the website. In turn, Southwind GC gave up one tee slot for the “Hot Deals,” usually at 11:40 a.m., according to O'Leary.

“We had no sign on the building or out by the road promoting the course, and it was a real challenge with the ownership group we had,” O'Leary recalls. “Working with GolfNow was a necessary evil, but over time I started seeing where the marketing started working and they started looking for every nook and cranny to advance their marketing concepts.”

GolfNow eventually brought in more hardware, programming and a tablet-based point of sale to the course's pro shop. In return they asked Southwind for another tee time that could be discounted. It was at that time O'Leary says, that he thought GolfNow became very aggressive with the “Hot Deals” on their websites, and that continues today. He believes the price

point of a round of golf in metropolitan Atlanta has become so devalued that some clubs are liquidating the bartered tee time.

The fear of losing customers keeps Southwind GC renewing its contract with GolfNow.

“To be able to cater to the wide array of demographics, I feel like you almost have to be a part of GolfNow. The new golfer has a smartphone and is technology savvy,” O'Leary says. “Some of those guys don't care. They pack their beer cooler up and go somewhere else and I can't say that I blame them.”

### **Wide-reaching fingers**

New golf courses are not the only venues that are attracted to the appeal of bringing in more golfers through third-party online booking agents. Dahlgreen Golf Club, founded in 1969 near the small town of Chaska, Minn., 30 minutes west of the Twin Cities, also saw the appeal.

The club and General Manager Dave Tesman began working with a “mom and pop shop” third-party booking agent to reserve rounds. The company eventually partnered

*Continued on page 22*

Continued from page 21

with GolfNow two years ago, and Tessman saw results working with the larger company.



Dave Tessman

“I think they have wide-reaching fingers. It’s a big plus because they got new people to come out to the course,” says Tessman.

But with relationships with third-party online booking agents involves a give and a take that Tessman tries to avoid.

## 10 GUIDELINES TO A HEALTHY RELATIONSHIP WITH ONLINE TEE TIME AGENTS

In June of this year, the National Golf Course Owners Association released 10 guidelines to help course owners navigate the waters of working with online tee time brokers. Here are the 10 points in abbreviated form — for the complete guide visit [NGCOA.org](http://NGCOA.org).

**Open Marketplace:** Owners should negotiate a contract that allows them to work with multiple online agents.

**Display Integrity:** Online Agents should show accurate tee time availability or user reviews of the course.

**Price Integrity:** Owners should set and negotiate their own prices, including discount and bottom prices, on tee time inventory. Prices on the online agents, website should be the same as the owner’s.

**Compensation of Online Agents:** Owners should have a mutually agreed upon option to pay online agents including cash, commission, barter tee times or leasing the software.

**Marketing:** Owners must give online agents written permission to purchase any keywords involved with their course in search engine marketing. A course’s tee times and price offerings should be accurate on the online agent’s website.

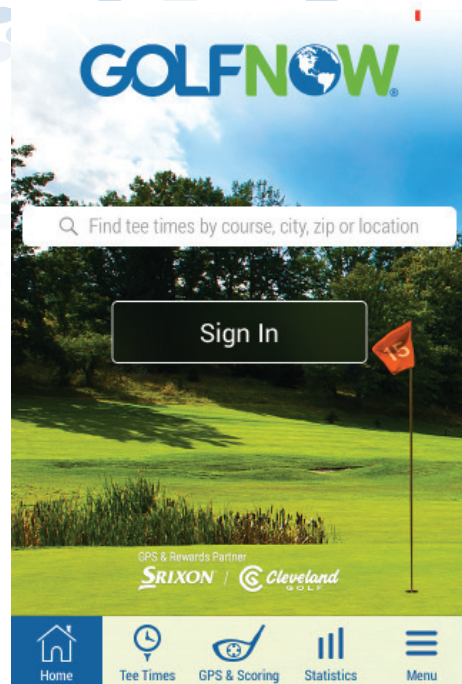
**Payments for Reservations:** Online agents that receive payment for the reservation should accept it in Payment Card Industry standards and pay the golf course within 30 days of when it was played.

**Mobile:** Owners should require that their tee times be offered on the online agent’s mobile website and apps for IOS and Android. Owners should look to create similar mobile offerings.

**Yield Management:** To maximize revenue, owners should apply strategic control of inventory to sell it to the right customer at the right time for the optimal price, which may be higher or lower than the standard price offered.

**Data:** To the extent legally permitted by applicable federal and state privacy laws, owners should receive data that can help owners serve customers and measure return on investment.

**Contract:** Owners should negotiate terms of a contract with online agents that meet their business objectives. They should understand all terms, including the termination process and potential termination penalties.



Dahlgreen does everything it can to stay away from trying to bring in golfers with a deep discount. To play 18 holes with a cart at Dahlgreen is typically \$51 per player, but golfers who take advantage of GolfNow’s “Hot Deal” can pay as low as \$29 per player for the same round.

“I don’t necessarily care for third-party tee time websites but they aren’t all bad,” says Tessman. “We are very careful about discounting our rounds, and whenever we run specials we call it ‘shooting ourselves in the foot.’”

### Duty to the industry

At GolfNow headquarters in Orlando, Fla., Jeff Foster, senior vice president of new media for Golf Channel, explains that he doesn’t want any golf course operator to “shoot himself in the foot.” As the director of GolfNow, he oversees what he describes as the “largest technology company in golf.”



Jeff Foster

“We believe we are providing a necessary service to the industry. Our mantra is convenience,” Foster says. “If we can make things easier for the operator and easier for the golfer, we believe we can grow rounds. We believe we have a duty in this industry to (grow the game.) If we don’t grow it, it’s not good for any of us.”

Continued on page 24

**“IT WORKS NONSTOP.”**

**TOM HUESGEN, CGCS | Sahalee Country Club | Sammamish, WA**

**“EXTREMELY EFFICIENT.”**

**MARK KUHNS, CGCS | Baltusrol Golf Club | Springfield, NJ**

**“VERY POWERFUL.”**

**RALPH KEPPLER, CGCS | East Lake Golf Club | Atlanta, GA**

**“BIG-TIME PRODUCTIVITY.”**

**LEE MCLEMORE, CGCS | The Country Club of Birmingham | Mountain Brook, AL**

**“IT’S EXCELLENT.”**

**NEIL PACKARD, Superintendent | Dallas National Golf Club | Dallas, TX**



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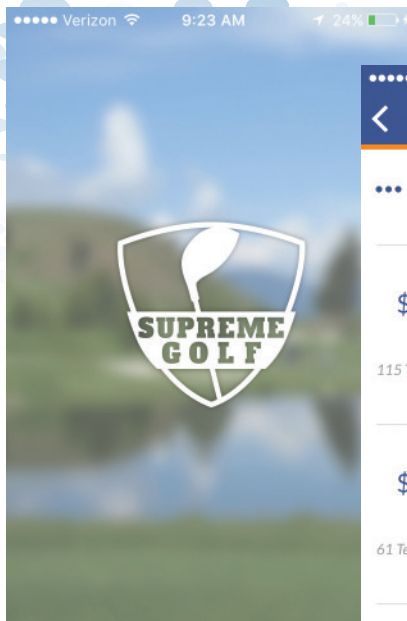
## // ONLINE TEE TIMES

Continued from page 22

Foster explains that some courses exchange a daily tee time as a trade for GolfNow's services. Those tee times are sold as "Hot Deals," and the money goes directly to GolfNow, and serves as the only payment the company gets for providing their services to a course. Because money made from the "Hot Deals" goes directly to GolfNow it's in the company's best interest to get as much as they can. They price that tee time based on demand.

"We look and see the tee time they gave me is at 1 p.m. on Thursday, and it's going to be a beautiful day, it's the opening of the season — we're going to try to hold rate as high as we possibly can," he says. "Conversely, if the hurricane is coming and it might start raining, we're going to lower that price."

But the rest of the tee times are priced by the course itself. Foster reminds



Golfers can book rounds in their area by using the various booking sites' free phone apps.

courses to stick to their own business plans and not let surrounding courses influence rates.

"When there are five courses near me

all charging less than me and you decide to go underneath them?" Foster warns, "That's called panic."

Continued on page 26

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# 13

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Recent field trials compared the performance of TURFCIDE, as part of AMVAC's recommended fairway snow mold control program, to competitive programs.

The results proved that the AMVAC program was not only more effective than the competition, but it also provided excellent snow mold control. In all 13 trials.

**SEE THE DATA.** Visit [amvac-chemical.com](http://amvac-chemical.com) to learn more.

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\*AMVAC recommended snow mold control program includes TURFCIDE® at 8 fl. oz. and Concert® II at 8.5 fl. oz.

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Heritage Ranch Golf & Country Club's General Manager Troy Trevino says sites like GolfNow are great for out-of-town golfers and he has used it while traveling too.

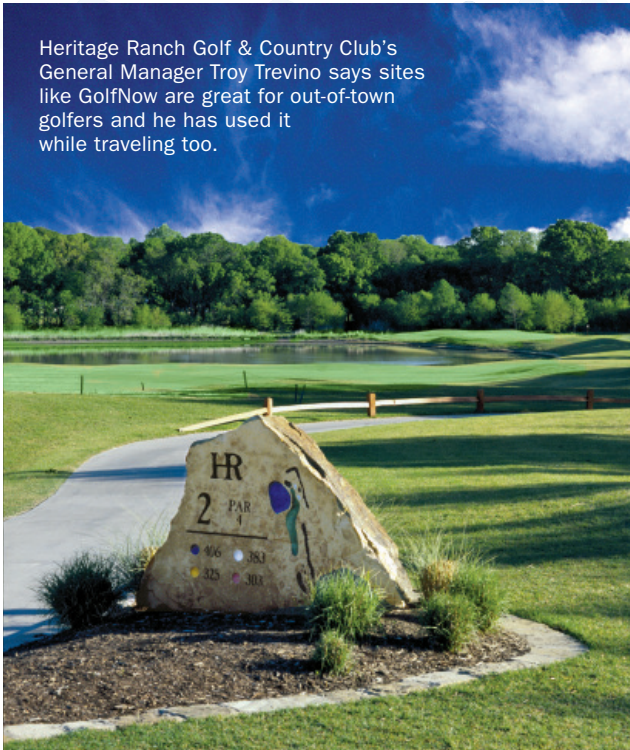


PHOTO COURTESY: TROY TREVINO

## “THIS IS NOT SOMETHING THAT IS GOING AWAY... IF MANAGED PROPERLY IT CAN BE A GREAT TOOL.”

*Continued from page 24*

“Some operators will pay close attention to what the other operators in a market will do, and they’ll find themselves in a price war on what is being charged for this coming Saturday,” he says. “You have to be careful. Your strategy can’t be what’s happening every minute in the marketplace — your strategy has to be based on what your goals are as a company.”

### Priceline Negotiator

In case you’re wondering, the National Golf Course Owners Association has not been silent on best practices for selling tee times on the third-party websites. The association’s leadership released a set of 10 guidelines endorsed by the PGA of America in June 2015 (see sidebar, page 22).

“Our viewpoint is these companies exist and are going to exist, and it’s important for golf course owners to make their own decisions,” says NGCOA CEO Mike Hughes.

“But our role is to provide education so they can make informed decisions. That’s what we are trying to do with the guidelines.”

The recently adopted guidelines cover subjects such as payment for reservations, price integrity and what information courses are entitled to collect about their customers.

How did the NGCOA come up with these specific measures? Let’s just say they were partially inspired by William Shatner’s role as the “Priceline Negotiator.”

The association likens golf’s situation with third-party websites like GolfNow, TeeTimes.com and TeeOff.com to that faced by the hotel and travel industry with websites like Priceline, Kayak and Hotels.com.



Mike Hughes

## INNOVATORS IN IMPERMEABLE WINTER PROTECTION

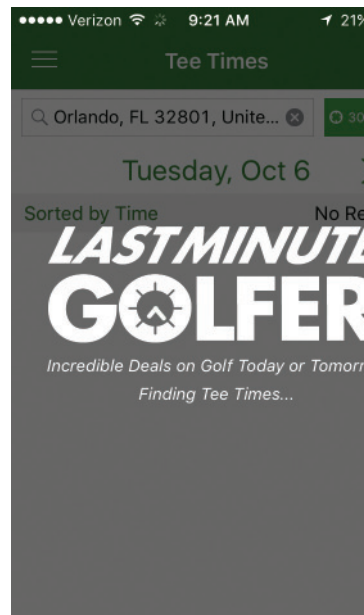
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Actual spring photo by a Superintendent — not retouched!



NBC/Universal also owns LastMinuteGolfer.com and Teetimes.com.

Hughes and the NGCOA believe that golf course owners don't have to guess about how the third-party websites work because this example already exists.

"The idea is to appropriate their best practices and use them in our context," Hughes says. "Virtually all of the guidelines are ones that were faced by hotels and travel industries. The guidelines themselves are a reflection of lessons learned."

### A tool for courses

Golf courses can learn from Heritage Ranch Golf & Country Club in McKinney, Texas, too. The semi-private club has a membership that is mainly 55 years and older and will typically play on weekdays from 7 a.m. to 11 a.m. This leaves non-members the weekday afternoons and weekends to play the course.

In August 2014 Heritage Ranch G&CC decided to try GolfNow for one year, and by the following August the course had made \$54,000 from GolfNow reservations, according to General Manager Troy Trevino.



Troy Trevino

Trevino says their results with the site are possible because the majority of reservations made on GolfNow are at their rack rate of \$79 and not the \$50 "Hot Deals" rate.

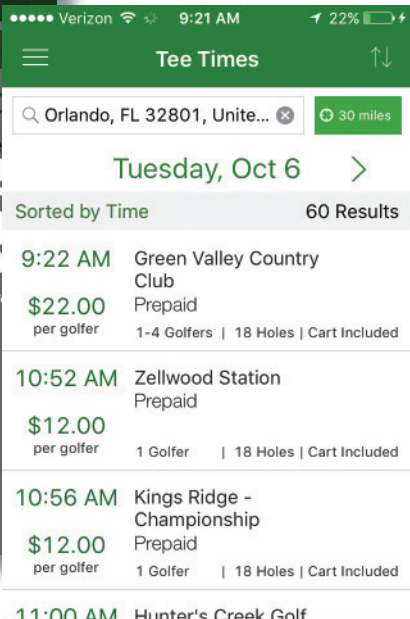
"This is not something that is going away and it is great with out-of-towners," says Trevino. "If managed properly it can be a great tool for a golf course."

Back at Southwind GC, the original ownership is gone and the new owner will have been there two years in February. O'Leary says the owner, a former pro, has talked about not renewing their contract with GolfNow this winter and then try to get the course back to a price point that is sustainable for them.

O'Leary agrees the price points have been hurting the long-term success of the club.

"For the sake of golf and the health of golf (third-party sites) are needed, but the cost of operations with fuel, fertility and manpower are on the increase," says O'Leary. "You can't take the greens fees down. We'll eventually lose golf clubs... but Lord knows I'd like to keep my course open."

*Golfdom Editor-in-Chief  
Seth Jones contributed to this story.*



# 98

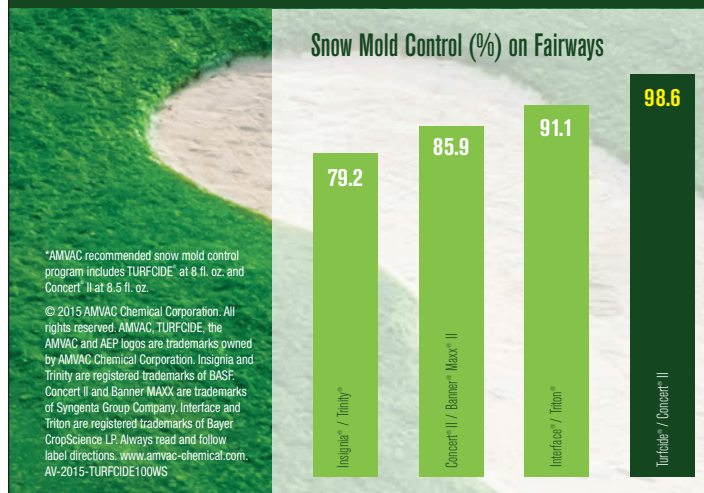
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# WHO WILL BE THE NEXT HERB GRAFFIS BUSINESSPERSON OF THE YEAR?

Now accepting nominations at [Golfdom.com/Graffis](http://Golfdom.com/Graffis)



The Herb Graffis Business Person of the Year Award, presented by *Golfdom* and sponsored by Jacobsen, is awarded each year to a person in the golf industry who is making a positive impact on the bottom line of his or her facility with

outside-the-box, cutting-edge thinking and overall business acumen.

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- » An expenses-paid trip to the 2016 Golfdom Summit

The award is named in honor of Herb Graffis, one of the first people to look at golf as a business when he founded *Golfdom* in 1927. With his foresight, Graffis helped advance the game in numerous ways, from co-founding the National Golf Foundation and the Club Managers Association to his work advocating on behalf of the superintendent and helping elevate their profile. In 1977 he became the first journalist to be elected to the World Golf Hall of Fame.

2012 Winner »  
Paul Chojnacky

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» 2015 winner  
William Larson, CGCS  
Town & Country Club, St. Paul, Minn.

2014 Winner »  
Jim Rattigan



» 2013 Winner  
Wayne Kappelman



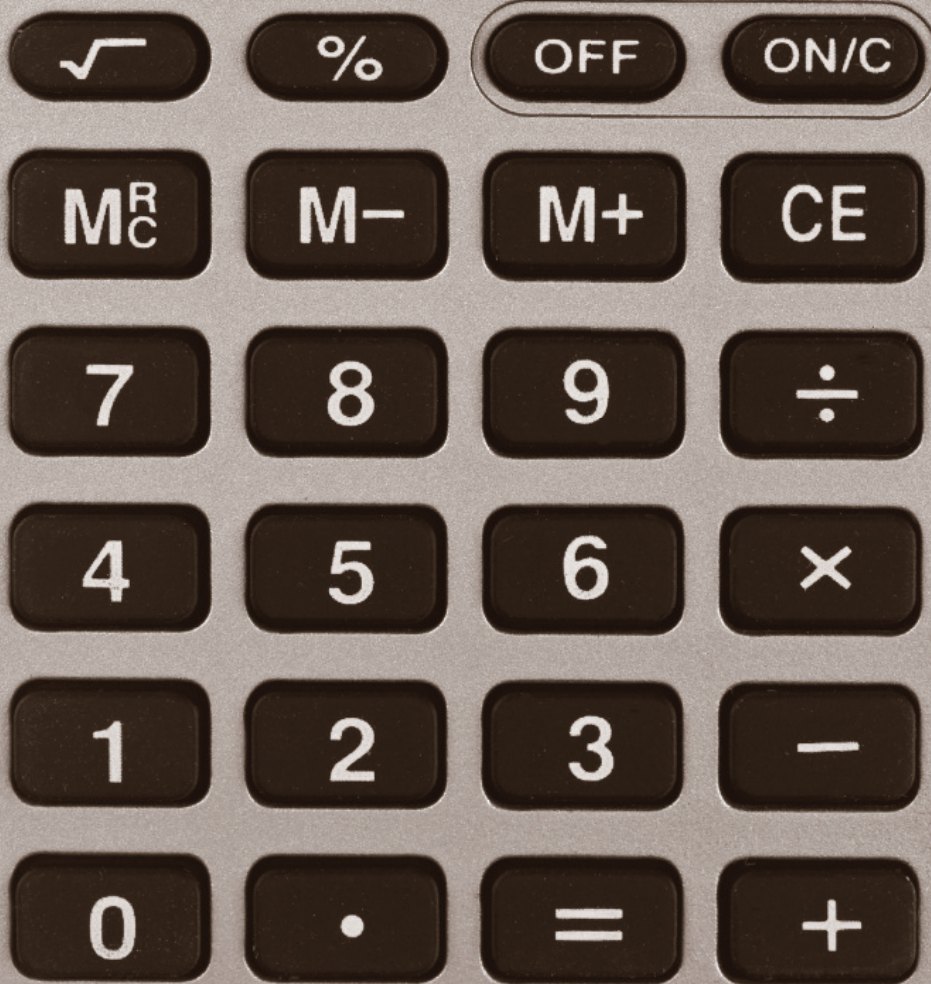
Know someone who deserves this recognition?  
Nominate them today at [GOLFDOM.COM/GRAFFIS](http://GOLFDOM.COM/GRAFFIS)



A SUPPLEMENT TO

# Golfdom

EARLY ORDER  
PROGRAM  
GUIDE





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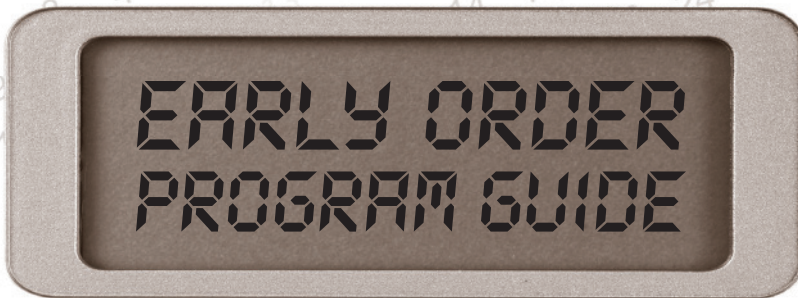
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A SUPPLEMENT TO

# Golfdom



**F**rom course to course, challenges differ. Even courses that border each other have unique challenges despite their close proximity.

The importance of maximizing maintenance dollars, however, might be the one universal commonality of the industry.

Sure, early order programs aren't for everyone, but they are for most. In a recent *Golfdom* survey, 80 percent of readers reported they participated in EOPs. For many of the superintendents we talked to, the money saved by EOPs allows them to do more in other areas of the course.

Or, as Jeffrey Nabozney, superintendent at Cedar River Golf Course in Bellaire, Mich., deftly puts it, "I want to get the best value for my course and have every working chemistry at my fingertips."

Hence the importance of providing readers with information on how EOPs can help them ("The Early Bird," EO4), and details on several unique programs in the industry.

This supplement, now in its second year, would not be possible without the support of its sponsors: Syngenta, FMC, Quali-Pro, NuFarm and BASF. Each of these companies shares their specific early order program offerings in this guide.

Our guide to EOPs is at your fingertips. Let the savings begin.

## The Early Bird

How early order programs benefit your course and the industry

BY STACIE ZINN ROBERTS

**EOP4**

PROGRAM SPOTLIGHT

**Syngenta**

**EOP10**

PROGRAM SPOTLIGHT

**FMC**

**EOP12**

PROGRAM SPOTLIGHT

**Quali-Pro**

**EOP13**

PROGRAM SPOTLIGHT

**Nufarm**

**EOP14**

PROGRAM SPOTLIGHT

**BASF**

**EOP15**

COVER: ISTOCK.COM (TRAVELER116)

# THE EARLY BIRD

How early order programs benefit  
your course and the industry

BY STACIE ZINN ROBERTS

*I*t's October, and all over the country manufacturer's sales reps and chemical distribution marketing teams are jumping into their cars and heading down the highway to see you, the golf course superintendent, the most important person in the product supply chain.



Harrell's warehouse employees prepare shipments of chemicals to superintendents taking advantage of the early order program.

They're coming to consult with you on their early order programs (EOPs), incentive buying programs that offer deep discounts off the price of fertilizer and other chemicals, if they're purchased in autumn rather than in the spring. If you buy now and buy enough, they'll probably throw in an option that lets you pay for the product in installments or upon delivery, if the numbers make sense. They might even offer you free delivery or cash rebates if you commit to enough product to last you through the 2016 growing season.

Yes, it's true. You, as the decision-making, product-buying, early-order-placing superintendent, have the power to impact more than just the inventory of fertilizers, herbicides and other chemicals at your golf course. You also have the ability to impact the entire golf industry — everyone from raw materials suppliers to manufacturers to sales reps, and even truck drivers who deliver the product to you, just by ordering early now in the fall rather than waiting until the spring when you'll actually use the products.

You might think that as one individual your order probably wouldn't make much of a ripple in the overall golf industry economic outlook. But as an influential group spending at least some percentage of your budget in the fall, superintendents have the heft to greatly sway how the industry plans its product production schedules and inventory management for the coming year.

"Anytime I can take variation out of the supply chain, we have lower costs and everyone benefits," explains David Closs, Ph.D., chairperson of the Department of Supply Chain Management at Michigan State University in East Lan-

sing. "The supplier of raw materials has a level demand, certainly the manufacturer benefits because he doesn't have to have the capacity for (sales) surges, and the superintendent or owner can benefit because they get a lower cost. They will also get better service because the stuff will be there when they need it."

### Chemistry at your fingertips

Having the product in the barn when he needs it is one of the big reasons why Rich Balsimo, superintendent at Houston Oaks Golf Course in Paris, Ky., spends the majority of his chemical budget on early order programs through his distributor, Harrell's.

"To have the product on hand is beneficial. With this past season, May was very dry. It was



**Rich Balsimo**

a perfect month. Temperatures were great and everything went according to plan," Balsimo says. "Then we went into June. Temperatures picked up a little bit and it rained every single day. I actually pulled my July 4th 'silver

bullet' spray and had to spray it in early June. By having that product on hand, I was able to change my schedule around."

With a chemical and fertilizer budget of between \$110,000 and \$115,000 for his 18-hole course grassed tee-to-green with disease-prone bentgrass, Balsimo estimates he spends nearly 99 percent of his budget for the year on early order. In return, his club receives significant discounts plus big rebates that total between \$8,000 and \$10,000 per year. Points programs

*Continued on page EOP6*

## EARLY ORDER PROGRAM GUIDE

*Continued from page EOP5*

through Syngenta and Harrell's in-house brands net the club another \$3,600 in jackets for the crew as well as gift cards the club uses to buy incidentals and equipment. He also is able to pay the invoice over three payments in May, June and July when the club is producing revenue, even though he takes delivery of the product in late March and into April.

Jeffrey Nabozney is the superintendent at Cedar River Golf Course, one of four golf courses at Shanty Creek Resort in Bellaire, Mich. Although all four superintendents at the resort manage four distinct budgets, Nabozney says he negotiates a group discount through three different distributors offering early order programs.

Nabozney estimates that the four courses save 20 percent on their chemical budgets. They pay their invoices on terms, with payments split over three installments. They all take delivery at the same time before April 30.

"I want to get the best value for my course and have every working chemistry at my fingertips," Nabozney says.

Greg Nicoll, vice president of sales and marketing for Harrell's, says "90 percent of our end users participate in some shape or form" in an early order program and can save "10 percent to 30 percent" on their chemical and fertilizer budgets. Nicoll says the distributor offers early order programs from companies such as Syngenta (see EOP profile on page EO10-EO11), Bayer, BASF (page EO15), Dow Chemical, FMC (page EO12), Nufarm (page EO14), PBI Gordon, SePro, Aqua-Aid and others. On average, nationwide, a Harrell's golf course customer orders between 30 percent and 60 percent of his/her overall chemistry budget during the early order period.

With this much volume being ordered at one time, Nicoll says it's critical for superintendents to plan their orders carefully. Harrell's reps track sales for their customers and can produce logs going back many years to help superintendents track trends.



**Greg Nicoll**

### Reducing stress

At Pleasant Valley Country Club, a nine-hole course in West Liberty, Ky., Ryan Gevedon relies heavily on his spray logs to prepare his early order purchases.

"Based on the previous spray logs and what I've seen, I am able to predict what I'll need. Most will cover general diseases — dollar spot, brown patch and that kind of thing. I'm able to predict that. It's going to happen, so basically I'm going back into the book. I know what we're going to see and what chemicals we're going to need to take care of that disease," says Gevedon, who serves as GM, head golf professional and superintendent at Pleasant Valley.

Because he wears three hats, Gevedon looks at the early order program for his course from three different perspectives. As head golf pro, he says, "you want your course to be in good shape" for playability. As a general manager, he looks at the EOP as a way to save money on the budget. And as a superintendent, he says, "saving that money will allow you to do extra things on the golf course to grow your membership and make existing members happier."

Participating in the early order program, while time consuming, also can set up a club for success the following season.

Pleasant Valley spends just shy of \$20,000 a year on chemicals and saves about \$5,000 a year by ordering early, Gevedon says. To big clubs, \$5,000 might be a nice bit of pocket change. But to a small club that operates on close margins, saving \$5,000, Gevedon says, could mean the difference between "being open for another year or going into the hole and having to go get donations. That \$5,000 can mean you're sitting pretty going into the next year."

However, EOPs can save superintendents more than just money. They can also save time down the road.

"It forces you to sit down and kind of look back on what the season was and make a plan for the next season," Balsimo says. "I try to plan as much as possible with everything, but once the season gets going it's pretty tough to sit down in the office and collect your thoughts or spend any time in here trying to figure things out. If all that's done ahead of time when the season's slow, that takes a big burden off of you (instead of)

## EOP GOES SOCIAL



We asked superintendents on Facebook to weigh in on early order programs. Here are a few replies.

*“I live by it. I like having my chemicals in the barn. Less to worry about in season when my focus is on the members and battling summer stress, not on how much it costs.”*

— **RYAN EMERSON, SUPERINTENDENT**  
Foxland Harbor G&CC, Gallatin, Tenn.

*“I can’t remember the last time I didn’t early order. There are always great specials when you order above a certain amount of chemical. I also order all of my snow mold product for the current year during early order. Definitely save there. And it sure is nice when that Harrell’s truck arrives in April with all my products for the season.”*

— **MICHAEL SALINETTI, SUPERINTENDENT**  
Cold Spring CC, Belchertown, Mass.


*“(EOPs) a great way to reduce your total chemical and fertilizer budget so you can buy more product to make the course better, but it has to fit into your programs, so don’t buy what you don’t need just to save money. I think that all EOPs are evolving to each region, as they should. It’s essential we find ways to produce a better product for less.”*

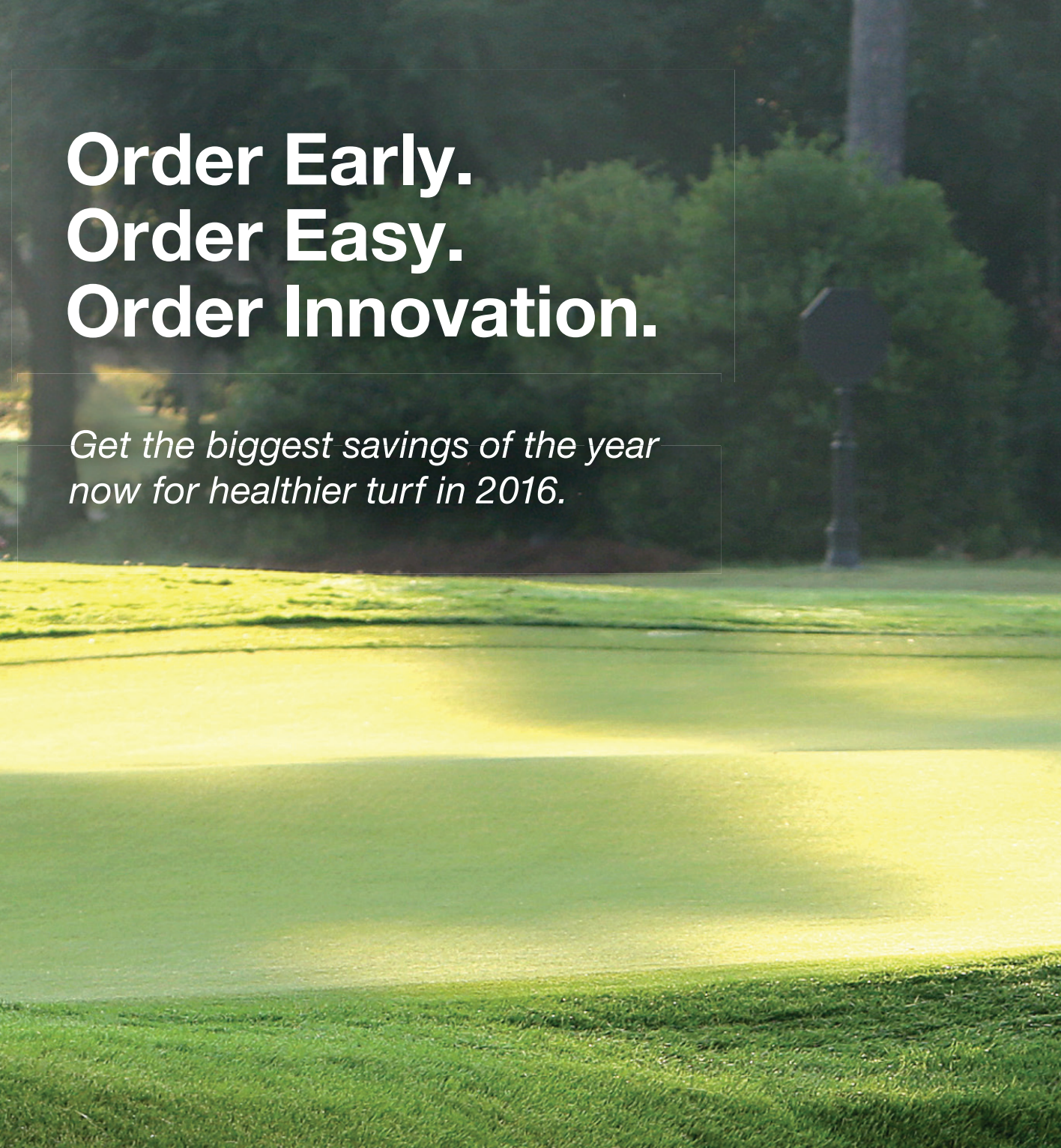
— **SCOTT CORWIN, DIRECTOR OF GROUNDS**  
The Renaissance Vinoy Resort and GC, St. Petersburg, Fla.

when you’re scatterbrained trying to find a plan.”

In the end, Closs says, EOPs help superintendents reduce their stress level when it comes to chemical purchases.

“It’s beneficial because I’ve locked in a price and I’ve locked in a quantity, so I can take that

risk off the table. I own it so I don’t have a problem of maybe it won’t be available or it won’t get delivered. I’ve reduced my uncertainty, and in many cases I’ve reduced my price. The big things are uncertainty and price and risk — it reduces all of those.” 



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**G**reenTrust 365 gives you more purchasing power than other programs. With the broadest portfolio of branded products, you have several ways to maximize your yearlong rebate and protect your course with confidence, all year long. Just make your purchases during the Early Order Period from October 1, 2015, to December 7, 2015. Now you can capitalize more than ever on all these program benefits:

## Yearlong Rebates



Lock in a yearlong rebate by spending a minimum of \$5,000 on Qualifying Products during the Early Order Period. Your yearlong rebate is valid for all purchases of Qualifying Products made during the Program Year: October 1, 2015 to September 30, 2016. The more you order, the more you save—and rebates can be as high as 10%.



Fairway Action Solution

**Savings Snapshot**—Your yearlong rebate ranges from 5% all the way up to 10%. This percentage is determined by the dollar value of Qualifying Products purchased during the Early Order Period.

### Dollar Value of Qualifying Products purchased during the Early Order Period

### Yearlong rebate percentage

\$5,000 to < \$10,000

5%

\$10,000 to < \$20,000

6%

\$20,000 to < \$40,000

7%

\$40,000 to < \$70,000

8%

\$70,000 to < \$100,000

9%

\$100,000 +

10%

# PROGRAM SPOTLIGHT

## GreenTrust Rewards



Earn more GreenTrust Rewards than ever. Every dollar spent in October earns triple points. Plus, you can earn up to an additional 30,000 GreenTrust Rewards Points through the Spotlight Brand Points Bonus and the Acelepryn® insecticide Points Bonus.

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Keep your cash flow in check by deferring payment until July 6, 2016. All you need to do is order Qualifying Products by December 7, 2015.

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Greens Contact Solution

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Maximize your purchasing power and save time with our easy-to-use calculators that help you determine your best product order. elect the calculator type that works best for you and your early order planning. Calculators include: Agronomic Pro, Savings Plus, Basic Savings

## Get more info at [GreenTrust365.com](http://GreenTrust365.com)

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## FAST FACTS

DEADLINE: **December 7, 2015**

WEBSITE: [GreenTrust365.com/Golf](http://GreenTrust365.com/Golf)

EARLY ORDER  
PROGRAM GUIDE



# 2015 FMC Early Order Program

**N**ow is the time to earn significant savings and benefit from extended terms on many of FMC's most popular turf and ornamental products! The FMC 2015 Early Order Program runs from October 1, 2015 through December 11, 2015, allowing participants to purchase products at current pricing but defer payment for select qualifying FMC products until June 24, 2016.

By purchasing during the month of October, participants qualify for an early incentive that offers an additional rebate of up to 40% more than the base rebate for qualifying products. The base rebate is still also in November and December, too.

Popular FMC products included in the program are new Fame™ fungicides — including Fame SC, Fame Granular, Fame +C and Fame +T — as well as Xonerate®, Dismiss®, Dismiss® South, Dismiss® CA, Blindside®, Echelon®, Solitaire®, QuickSilver® and SquareOne® herbicides. Also included are popular Triple Crown®, OnyxPro®, Aria® and Talstar® insecticides.\*

The more you buy, the more you earn! FMC 2015 Early Order Program rebates range from

5-25% during the Early Order Program Period. Participating professionals must earn a rebate minimum of \$200 on FMC Early Order Program products to qualify for rebates. After purchasing, simply submit a rebate form online at [www.fmceop.com](http://www.fmceop.com) no later than January 16, 2015.

According to FMC Program Manager Trent Bradford, "The FMC 2015 Early Order Program offers great flexibility while capitalizing on the full FMC portfolio of turf and ornamental solutions. Early planning gets your season off to a good start. Get a jump start on 2016 now with the FMC Early Order Program."

Always read and follow label directions. FMC, Fame, Blindside, Dismiss, Echelon, QuickSilver, Solitaire, SquareOne, OnyxPro, Talstar and Triple Crown are trademarks of FMC Corporation. Aria is a trademark of Ishihara Sangyo Kaisha, Ltd. Xonerate is a registered trademark of Arysta LifeScience North America, LLC. © 2015 FMC Corporation. All rights reserved.

\*OnyxPro insecticide, Triple Crown Golf insecticide and Talstar Select insecticide are Restricted Use Products.



## FAST FACTS

DEADLINE: **December 11, 2015**  
WEBSITE: [fmceop.com](http://fmceop.com)

1735 Market Street, Philadelphia, PA 19103 | **PHONE:** 215-299-6000  
**WEBSITE:** [fmcprosolutions.com](http://fmcprosolutions.com) | **TWITTER:** @fmcturf and @fmcpst



# Quali-Pro Releases Early Order Programs

**S**tart next season off with these great end-user programs from Quali-Pro of Control Solutions Inc. Some conditions and restrictions apply. To see a list of all of Quali-Pro's end-user programs and download redemption forms, visit [www.quali-pro.com/promotions](http://www.quali-pro.com/promotions).

**2DQ** – powerful three-way herbicide for broadleaf weed control on warm and cool season turf-grasses.

- Buy 5 cases of 1 or 2.5 gallon, get **1 CASE FREE!**
- Buy 10 cases of 1 or 2.5 gallon, get **3 CASES FREE!**

**Enclave**® – broad spectrum fungicide with Quad-Control Technology for turfgrass and ornamentals.

- Buy 2 cases of 2.5 gallon, get a **\$100 GIFT CARD!**
- Buy 5 cases of 2.5 gallon, get **1 CASE FREE!**



**Enclave**® and **Foursome**® – powerful three-way herbicide combined with our unique pigment additive for broadleaf weed control.

- Buy 2 cases of 2.5 gallon Enclave® plus 1 case of Foursome®, get **1 CASE OF ENCLAVE® FREE!**

**Strobe**® 2L – broad-spectrum, liquid azoxystrobin fungicide with protectant, curative, eradicator and systemic properties.



- Buy 2 cases of 1 gallon, get a **\$100 GIFT CARD!**
- Buy 5 cases of 1 gallon, get **1 CASE FREE!**

**Strobe**® 50WG – broad-spectrum, wettable granule azoxystrobin fungicide with protectant, curative, eradicator and systemic properties.

- Buy 2 cases of 6 pound, get a **\$400 GIFT CARD!**
- Buy 5 cases of 6 pound, get **1 CASE FREE!**
- Buy 2 cases of 1 pound, get a **\$150 GIFT CARD!**
- Buy 5 cases of 1 pound, get **1 CASE FREE!**

**Strobe**® T – Azoxystrobin and Tebuconazole in a suspension concentrate product with multiple modes of action.

- Buy 2 cases of 1 gallon, get a **\$100 GIFT CARD!**
- Buy 5 cases of 1 gallon, get **1 CASE FREE!**

**FAST FACTS**

DEADLINE: **November 20, 2015 to order,**  
**January 15, 2016 to redeem**

WEBSITE: [quali-pro.com](http://quali-pro.com)



# Nufarm Turf End User Rewards 2016

**M**aximize profit and reach your potential faster with the 2016 Nufarm End User Rewards program. With the innovative and diverse Nufarm product portfolio, you'll have the best chance of reaching your business goals. And with our rewards for ordering early, you'll maximize profit and get there faster. To earn big rewards in the form of distributor credits, qualify by March 1, 2016. To earn even bigger rewards, qualify by October 31, 2015. Register at [nufarmrewards.com](http://nufarmrewards.com) or contact your authorized Nufarm distributor for a list of eligible products and programs. **Online registration is required to receive rewards.**



## ELIGIBLE PRODUCTS AND REWARDS

NON-SELECTIVE HERBICIDES	PERIOD 1 REWARD	PERIOD 2 REWARD
ProDeuce®	\$3.00/gal	\$2.00/gal
Razor Burn®	\$3.00/gal	\$2.00/gal
SELECTIVE HERBICIDES	PERIOD 1 REWARD	PERIOD 2 REWARD
4-Speed® XT	\$4.00/gal	\$3.00/gal
BroadStar™	\$0.09/lb	\$0.05/lb
Change Up™	\$5.00/gal	\$3.00/gal
Cool Power®	\$3.00/gal	\$2.00/gal
Elliptical™	\$5.00/gal	\$3.00/gal
Envoy Plus®	\$5.00/gal	\$3.00/gal
Escalade® 2	\$5.00/gal	\$3.00/gal
Horsepower®	\$3.00/gal	\$2.00/gal
Last Call™	\$20.00/gal	\$12.00/gal
Manor®	\$15.00/lb	\$10.00/lb
Millennium Ultra™ 2	\$5.00/gal	\$3.00/gal
Prosedge™ 2	\$2.25/oz	\$1.50/oz
Quincept®	\$4.50/gal	\$2.50/gal
SureGuard®	\$11.00/lb	\$6.00/lb
Triamine®	\$1.50/gal	\$0.75/gal
Triamine® Jet-Spray	\$0.50/can	\$0.30/can
Triplet® Low Odor	\$2.00/gal	\$1.00/gal
Velocity®	\$20.00/lb	\$12.00/lb

## ELIGIBLE PRODUCTS AND REWARDS *Continued*

FUNGICIDES	PERIOD 1 REWARD	PERIOD 2 REWARD
26/36®	\$8.00/gal	\$4.00/gal
3336® DG Lite	\$0.08/lb	\$0.05/lb
3336® EG	\$1.00/lb	\$0.75/lb
3336® F	\$12.00/gal	\$8.00/gal
3336® WP	\$0.50/lb	\$0.35/lb
Adorn®	\$12.00/qt	\$7.00/qt
Affirm™	\$7.00/lb	\$4.00/lb
Alude™	\$10.00/gal	\$6.00/gal
Cuproxat®	\$15.00/gal	\$10.00/gal
Emblem™	\$15.00/pt	\$10.00/pt
Spectro® 90 WDG	\$1.00/lb	\$0.80/lb
Stellar®	\$22.00/btl	\$12.00/btl
Strider™	\$3.00/gal	\$2.00/gal
Torque™	\$10.00/gal	\$6.00/gal
Tourney®	\$30.00/lb	\$20.00/lb

INSECTICIDES	PERIOD 1 REWARD	PERIOD 2 REWARD
Arena® 0.25 G	\$0.09/lb	\$0.05/lb
Arena® 50 WDG	\$11.00/lb	\$6.00/lb
DiPel® Pro	\$1.00/lb	\$0.60/lb
Distance® IGR	\$9.00/qt	\$5.00/qt
Distance® FAB	\$0.30/lb	\$0.20/lb
Gnatrol®	\$1.00/lb	\$0.70/lb
Minx™	\$20.00/gal	\$15.00/gal
Overture®	\$4.00/lb	\$2.50/lb
Safari® 20 SG	\$10.00/lb	\$6.00/lb
Tame®	\$5.00/qt	\$3.00/qt
TetraSan®	\$0.44/ea	\$0.26/ea
TriStar®	\$35.00/gal	\$20.00/gal

GROWTH REGULATORS	PERIOD 1 REWARD	PERIOD 2 REWARD
Anuew™	\$7.00/lb	\$4.00/lb
Fascination®	\$9.00/gal	\$5.00/gal
ProGibb®	\$2.50/qt	\$1.50/qt
RiteWay®	\$15.00/gal	\$10.00/gal
Sumagic®	\$15.00/gal	\$10.00/gal
Verve™	\$7.00/gal	\$4.00/gal

AQUATIC Herbicides	PERIOD 1 REWARD	PERIOD 2 REWARD
Clipper® (4x1 lb only)	\$4.00/lb	\$2.50/lb

## FAST FACTS

DEADLINE: **October 31, 2015 & March 1, 2016**  
WEBSITE: [nufarmrewards.com](http://nufarmrewards.com)

PROGRAM  
SPOTLIGHT

# BASF 2016 Early Order Program

The BASF Early Order Program for 2016 makes it easy to order and save on products that ensure healthier, more beautiful turf for the coming year. All the popular features of last year's program are back: the \$1,500 rebate level, 10% discounts on all cubes, and savings on our most innovative fungicides.

To get ahead of the game, order and save now to ensure more playable turf for 2016. EOP is as simple as 1-2-3.



1. Plan your purchase early for maximum savings. Earn up to 33% more in rebate dollars by ordering in October when rebate levels are highest. Rebates start when you spend \$1,500. Order early, but pay nothing until June 2016.

Purchase Total	Oct. 1 – 31 Rebate	Nov. 1 – Dec. 11 Rebate
\$1500 - \$6,999	4%	3%
\$7,000 - \$19,999	7%	5%
\$20,000+	10%	7%

2. Order specially designed product cubes, which deliver convenience and 10% instant savings. Each cube provides a combination of products selected to address your specific needs and course conditions.

## FAST FACTS

DEADLINE: **December 11, 2015**  
WEBSITE: **Betterturf.basf.us/eop**

3. Order our most innovative fungicides, **Lexicon® Intrinsic®** brand fungicide or **Xzemplar®** fungicide, and boost your rebate an additional 1% on your entire order.

This year's program also features the new EOP Order Planner, which makes it easy to prepare your order and calculate your rebate. It also converts cube and individual product selections to the number of applications and acres covered, helping to ensure you have the products you need in 2016. When you're ready, you can print or email the form to your DSR.

Visit [betterturf.basf.us/eop](http://betterturf.basf.us/eop) for complete EOP information, including product information, video testimonials, electronic copies of everything in this mailing, and the new EOP Order Planner.



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Fluoxastrobin action gives  
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Optimized resistance  
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 **Fame**<sup>TM</sup> **+C**  
Fluoxastrobin + Chlorothalonil

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# AT THE HEART OF IT ALL

BY BOB SCOTT, ASIC, CID, CLIA AND ANTHONY L. WILLIAMS CGCS, CGM

Renovation projects are a part of any golf facility's long-term planning and success. Some renovations are simple, some complex, and all are as diverse as golf courses themselves.

When it comes to planning and executing a pump station renovation, the costs and projected life of this critical equipment mandate an unparalleled commitment to planning, execution and operation. Whether you are just putting together a request for a pump station renovation or are about to start the actual site work, you must address a number of items to succeed.

## Putting first things first

The pump station is the heart of an irrigation system, literally pumping water resources throughout the property. Few capital items carry this much importance and the expectation of a decades-long lifespan. The decisions made in planning a pump house often dictate its success or failure.

What's the first question to ask? It's "Do I really need a pump station renovation/replacement?" The only reasons that point to the need for such a renovation are that the existing pump station is damaged (see photo to the left), or the existing pump station cannot meet current or projected demand or expectations. While the details of a pump house renovation may be complex, the initial reasons for the project usually are clear.

Gathering the pre-project information

*Continued on page 46*



The main pump station at Stone Mountain (Ga.) Golf Club by Marriott is severely damaged by flood waters in September 2009. This began a four-year process of designing, permitting and building a new state-of-the-art pump station.

PHOTO BY: ANTHONY WILLIAMS

Continued from page 45

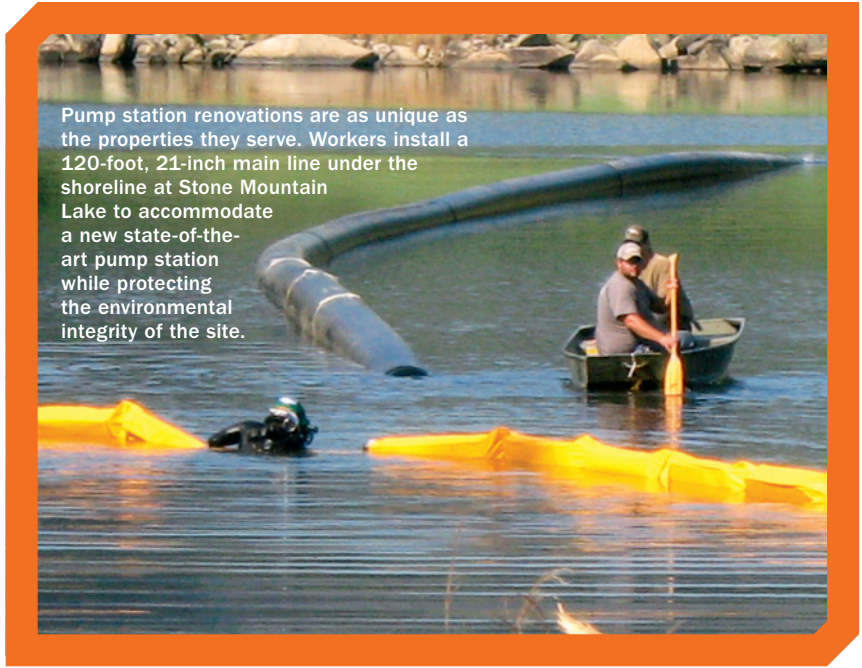
and specifying the scope of work for a pump station project requires assembling a specialized team of qualified experts. As superintendent, you serve as project coordinator. However, depending on the complexity of your project, you will need other accomplished experts to ensure success. These experts include but are not limited to an irrigation/pump station design consultant (the person actually creating the pump station scope of work documents), a civil engineer (water flow and permitting), an irrigation contractor and subcontractor (responsible for completing the scope of work), an erosion control specialist, a boring or specialty contractor, an electrician, various inspectors, a safety coordinator, a general construction expert (building, concrete etc.), an arborist (if tree removal is required) and an environmental consultant if wetlands or other environmental issues are affected. Assembling a great team that works together for the duration of the project makes the entire process easier and more effective.

### Securing funding and support

So you now have general support for the project and have gathered your team of experts to formalize the scope of work. You next embark on the tedious task of securing the funding and stakeholder support for the project.

You already have the investment of your time and planning fees, but the next crucial step is to create an accurate budget projection presentation. This includes a detailed ROI (return on investment) and a step-by-step cost breakdown and preliminary construction calendar. Spend time on these items at this stage to earn the full support of your property's stakeholders. Include a set of pictures documenting site features and goals to show clarity of purpose.

Your primary roles at this stage are project manager (an expert in the field



Pump station renovations are as unique as the properties they serve. Workers install a 120-foot, 21-inch main line under the shoreline at Stone Mountain Lake to accommodate a new state-of-the-art pump station while protecting the environmental integrity of the site.

and salesman (selling the value of the project, even to detractors). Be cooperative and flexible at this point, never waiver from the core issues, and communicate, communicate, communicate. This means using face-to-face meetings, phone calls, text messages, e-mails and video conferencing, etc. Multiple communication methods ensure efficiency and document the flow of information through this critical stage of the project. It also gives every stakeholder a confirmed voice in the approval process, which pays dividends during the entire project.

### Permits, inspections and the scope of work

The irrigation consultant is critical in identifying the necessary scope of work, including any change orders required over the course of the project.

At our recent project at Stone Mountain (Ga.) Golf Course, for example, the initial site condition character identification was to have a floating pumping system in Stone Mountain Lake. However, a 500-year flood event created

the need to move the pumping system to an offshore configuration with a 120-foot intake pipe under/in the historical and environmentally protected lake/shoreline. This is when federal and state waterways permitting approval became necessary.

We retained a highly skilled civil engineer to handle the extensive permitting to match our construction plan details. Construction in the lake and shoreline buffer was prohibited during the permitting process. This led to boring the 21-inch intake line from outside the buffer to a designated intake site in order to protect the shoreline buffer and give a gravity flow back to the pumping system. A geologist was commissioned to take core samples of the intake piping routing to identify soils and rock conditions. Fortunately, the geologist's finding was not solid granite, but more of a pose rock formation that could be bored through effectively.

After permit acceptance, final bid documents, including plans and specifications, were completed. These documents were approved by county, state and federal inspection agencies. These inspectors were periodically on site throughout the project.

Continued on page 48



PHOTO BY: ANTHONY WILLIAMS / ISTOCK.COM (ERAYUS)

# GO GREEN.

[...on your tee boxes]

[...on your greens]

[...on your high traffic areas]

[...on your fairways]



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THE LEADER. SINCE 1961.

Continued from page 46

These adjustments were critical to the project's success, but were only revealed as the processes were diligently researched. As we say, "An ounce of preplanning/permitting is worth a pound of change orders."

### Bidding

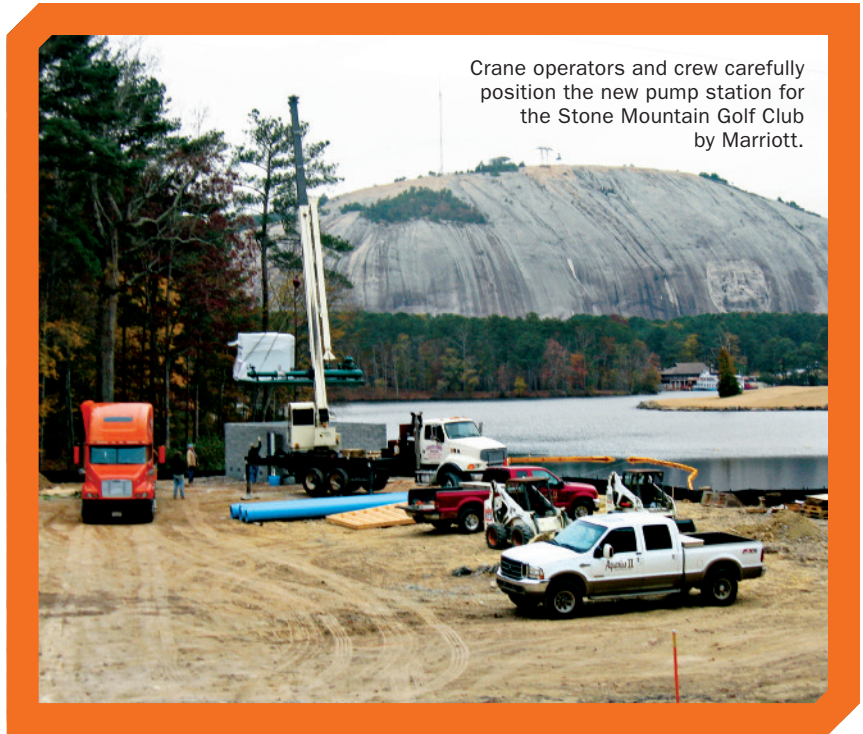
With all your permits in place, the contractor bid process begins. This starts with the qualification of contractors/bidders and usually requires that each bidder document completion of at least three projects of similar type and size in the last five years. You then select a contractor in a competitive bid process.

Once you award the contract, you post the construction schedule. This includes pre-construction meetings, material submittal acceptance and an installation progress chart showing agreed upon completion goals.

The pumping unit usually is prefabricated from a one-source manufacture, which gives the client a warranty of a complete pumping unit. It takes roughly six weeks for manufacturing and delivery. During this time you mobilize the contractors and prep the site for pump unit delivery. This includes erosion control, grading, intake bore and wet well and the installation of the building concrete pad. Other items in the installation contract include installing new irrigation piping and isolation valves to connect the new pumping system to the existing irrigation system. The Stone Mountain project had a typical 10-week construction schedule with weekly compliance inspections. Pump station projects are most effective when synergy between the stakeholders connects the project from planning to permitting, from compliance to construction, culminating with the operation of the system.

### Pumping system commission and maximizing the new asset

When involved with sophisticated pumping equipment during closeout of the



Crane operators and crew carefully position the new pump station for the Stone Mountain Golf Club by Marriott.

contract, we recommend factory commissioning. This includes startup calibrations and testing all components during a high-stress operational evaluation.


This "working out the bugs" process ensures that any problems or failures happen during commissioning. Conduct piping pressure tests after the unit is commissioned to access complete installation acceptance. At this time, complete the closeout documentation of as-buils, factory commission and spare parts with warranty agreements, including owner's operation and maintenance manual submittals.

Also important early in the first season of new system operation is completing the interfacing of the golf course central irrigation or other controls. This takes full advantage of any performance features in the pumping system, including flow management to irrigate at maximum flow (helping to shorten watering windows) and maximizing run times to water the turfgrass at the peak time of moisture

uptake, thus using less water to achieve optimum turf health.

### Daunting but rewarding

Renovating a pump station may seem like a daunting task, but a focused effort and attention to detail ensures that the process will be successful and rewarding. You are the conductor of the renovation orchestra at your property, and while you must know all the parts, you do not have to play every instrument yourself.

Secure the services of reputable and proven experts to keep your project compliant and on schedule, from approval of the project to signing off on the final punch list items. Keep accurate records. Above all, plan the work and work the plan. Focus your efforts on solving the problems that led up to the renovation with a constant eye on the scope of work and approved budgets and deadlines. The results will be decades of valuable pump station service to the property and to the people who saw this asset to completion. 



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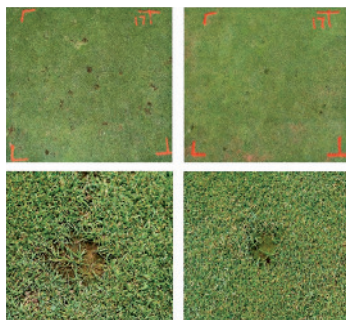
## // QUICKSILVER STRIKE

# CONTROLLING SILVERY-THREAD MOSS WITH QUICKSILVER

By Cole Thompson, Ph.D.

**S**ilvery-thread moss (STM) (*Bryum argenteum* Hedw.) continues to trouble superintendents managing creeping bentgrass (*Agrostis stolonifera* L.) and annual bluegrass (*Poa annua* L.) putting greens. Extremely small asexual propagules make STM an invasive and resilient weed that often requires the integration of both cultural and chemical strategies to obtain acceptable levels of control.

Quicksilver (carfentrazone-ethyl) currently is the most effective and widely used product for STM control, but likely is only effective on actively photosynthesizing portions of plants concentrated at growing tips. In the weeks following an application of Quicksilver, superintendents often observe significant STM recovery from surviving structures. For STM control, Quicksilver's label suggests making two sequential applications two weeks apart at 6.7 fl. oz./acre. If moss recovery occurs in the weeks following the initial applications, follow-up applications can be applied every two weeks at 2.0 to 6.7 fl. oz./acre as needed.



**Left:** Research plot (above) and STM colony (below) two weeks after treatment with Quicksilver. **Right:** Research plot (above) and STM colony (below) six weeks after treatment with Quicksilver.

This wide range piqued our curiosity, so we devised several studies to determine how differing Quicksilver rates would affect STM growth.

Currently, field studies at Kansas State and California Polytechnic State Universities are under way to complement previous greenhouse investigations and observe the potential recovery of STM following a single application of Quicksilver at various rates. Field experiments were initiated in June 2015 in Manhattan, Kan., and San Luis Obispo, Calif., on natural infestations of STM at each site. Following initial STM coverage ratings, research plots were treated with Quicksilver at 1.7, 3.4, 6.7 or 13.4 fl. oz./acre or left untreated. Recovery of STM was then monitored weekly for six weeks after treatment to discern potential differences among application rates.

Results from this study will help superintendents select an appropriate and efficient rate of Quicksilver as part of an integrated STM control program.

Cole Thompson, Ph.D., California Polytechnic State University-San Luis Obispo, Steve Keeley, Ph.D., Kansas State University and Zane Raudenbush, Ph.D., Kansas State University. Thompson can be reached at [cthomp35@calpoly.edu](mailto:cthomp35@calpoly.edu) for more information.

## NEWS UPDATES

### GGEF DONATES NEARLY \$10,000 TO UGA TURFGRASS RESEARCH

The Georgia Golf Environmental Foundation (GGEF), the philanthropic arm of the Georgia Golf Course Superintendents Association, will donate nearly \$10,000 to support turfgrass research at the University of Georgia (UGA).

The funds will go toward helping compensate graduate students working with Brian Schwartz, Ph.D., from UGA Crop and Soil Sciences Department, and their research for more environmentally sustainable golf course grasses.

"We are very happy to provide this support to Dr. Schwartz and UGA," says GGEF Research Committee Chairman Kyle Marshall from Capital City Club in Woodstock, Ga. "It seems to us to be such a sure thing to support. I don't know of any research department anywhere that has had the record of success that UGA has produced when it comes to turfgrass."

Marshall says Schwartz continues the tradition of excellent turfgrass research at UGA established by Wayne Hanna, Ph.D., and Glenn Burton, Ph.D. Schwartz and Hanna were partners on the recent release of a new drought tolerant bermudagrass called TifTuf.

The GGEF, established in 2004, has donated more than \$150,000 to funding of research throughout the past decade. The foundation also provides an annual free education seminar for superintendents with information on advances in environmental sustainability on golf courses.

**SILVERLY-THREAD MOSS TREATED WITH AMMONIUM SULFATE HAD TWICE AS MUCH SHOOT MASS COMPARED TO MOSS FERTILIZED WITH UREA."**

**Zane Raudenbush, Ph.D.**

(see story on page 52)

//CONTROL STRATEGIES

# Nitrogen fertilization and silvery-thread moss

*Figuring out N's contributions to STM success*

By Zane Raudenbush, Ph.D., and Steve Keeley, Ph.D.

If you're a superintendent managing cool-season grass putting greens, you've most likely dealt with silvery-thread moss (STM). Its biological and ecological traits are well-adapted to life in a putting green, and that creates challenges when attempting to develop control strategies.

Typically, a STM infestation begins as small, 1- to 2-inch diameter colonies that can rapidly increase in size, especially in cool weather. Researchers are interested in determining factors that contribute to STM's success in order to determine best management practices. Nitrogen fertilization has been shown to dramatically impact STM growth. In particular, research has proven that spraying urea enhances STM competitiveness compared to applying insoluble nitrogen.

Unfortunately, superintendents prefer not to apply insoluble nutrients, specifically N, because some insoluble granular products emit a foul odor after application, granular fertilizers may stick to the rollers on reel mowers and create a marcelling effect, and mowing may remove granular fertilizers, reducing their effectiveness. By contrast, superintendents can add soluble N to a spray tank and apply in conjunction with pesticide and plant growth regulators.

Urea and ammonium sulfate are two soluble N sources that superintendents commonly use. Ultimately, both N sources are converted from  $\text{NH}_4^+$  to  $\text{NO}_3^-$  in the soil via nitrification. However, agronomists often recommend

**FIGURE 1**



**RATING GRID** used to determine percent silvery-thread moss cover.

ammonium sulfate as the primary N source for high pH soils. Ammonium sulfate may be the ideal nitrogen source when attempting to reduce root zone pH, but it has a higher potential than urea to burn turfgrass leaves because of its higher partial salt index. A high partial salt index can create an osmotic gradient that draws water directly from the cells of turfgrass leaves, causing discoloration. With STM, this effect on osmotic potential is of interest because bryophytes (moss) are especially susceptible to osmotic shock.

Because of its higher partial salt index, we initially thought that substituting ammonium sulfate for urea would be detrimental to STM, so we set out to test our hypothesis.

## GREENHOUSE STUDY

We first did a greenhouse study to determine the effects of N source on STM growth in a controlled environment. We established silvery-thread moss collected from a local putting green in PVC containers (4 inches in diameter by 10 inches deep) filled with sand conforming to USGA guidelines for a putting green root zone. We applied ammonium sulfate or urea weekly at 0.1 lbs. N/1,000 square feet for seven weeks. As always in this type of research, some pots were left untreated for comparison. We applied fertilizers with a single-nozzle (TeeJet XR8004EVS) sprayer, with a spray volume of 1 gallon/1,000 square feet. We determined the percent of moss

Continued on page 55

PHOTO BY: ZANE RAUDENBUSH





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	Fame™ + C Fungicide	2.5 gallons	2 Units	\$35.00	x	\$25.00	x		
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	Dismiss® CA Turf Herbicide	6 oz	4 Units	\$8.00	x	\$6.00	x		
	Dismiss® South Herbicide	1 pt	2 Units	\$20.00	x	\$15.00	x		
	Echelon® 4SC Herbicide	1 gallon	4 Units	\$30.00	x	\$20.00	x		
	QuickSilver® Herbicide	8 oz	2 Units	\$15.00	x	\$10.00	x		
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	Solitare® Herbicide	1 lbs	2 Units	\$12.00	x	\$10.00	x		
	SquareOne® Herbicide <small>*White supplies last</small>	0.5 lbs	2 Units	\$5.00	x	\$3.00	x		
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**Herbicide Total \$0**

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cover weekly using digital analysis. After trial completion, we harvested the moss shoot material, dried it and recorded the dry weights.

### FIELD STUDY

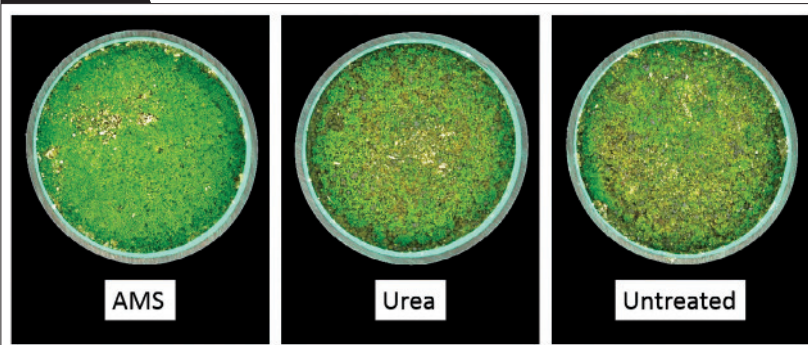
We conducted field studies the next year from May to October at Rocky Ford Turfgrass Research Center and Colbert Hills Golf Club in Manhattan, Kan. The Rocky Ford putting green had a sand-based root zone and contained Declaration creeping bentgrass (*Agrostis stolonifera* L.), which we mowed six days a week with a flex-cutting unit set to a bench cutting height of 0.115 inch. The Colbert Hills green was of California-style construction and contained Penn G-2 creeping bentgrass. We mowed it six days a week also, but with a triplex mower set to a bench cutting height of 0.115 inch. We irrigated both sites every two to three days at 100 percent ET replacement, estimated from on-site weather stations.

We applied treatments at the same rates and intervals as in the greenhouse experiments but for a longer time period, specifically, from May 15 to Oct. 15. Initial STM cover at Rocky Ford ranged from 5- to 15-percent cover with an average cover of 9 percent, and the STM cover at Colbert Hills ranged from 5 percent to 21 percent, with an average cover of 13 percent. We determined silvery-thread moss cover of the 3-foot-by-3 foot plots by using a rating grid containing 961 intersections on 1-inch centers (Figure 1). We registered a count if moss was present under an intersection.

### EFFECT OF N SOURCE IN GREENHOUSE STUDY

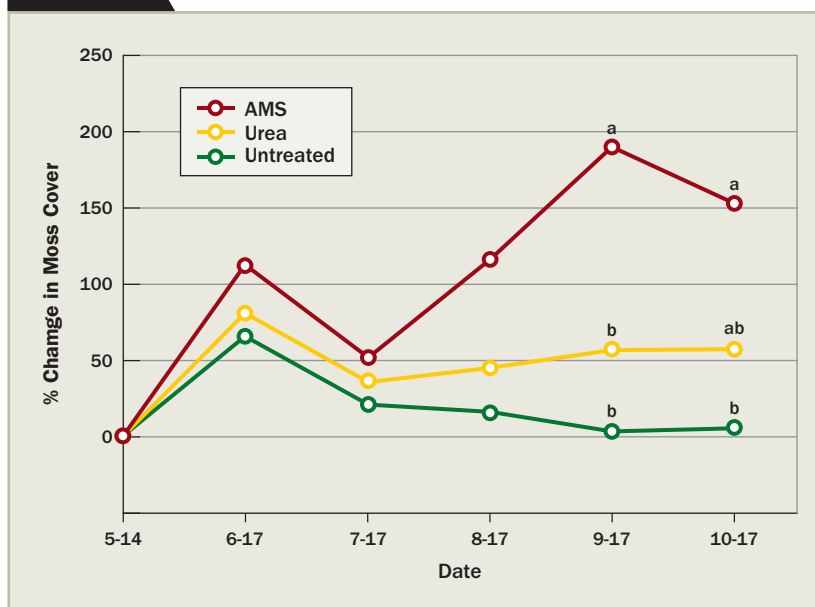
To our surprise, while both ammonium sulfate and urea generally increased STM cover, ammonium sulfate caused the greatest increases by far (Figure 2). Originally, we hypothesized ammonium sulfate's higher partial salt index would injure STM. Perhaps the "spoonfeeding" N rates we used (chosen because they

**FIGURE 2**



**EFFECT OF AMS AND UREA** Lightbox images showing effect of ammonium sulfate (AMS) and urea when applied at 0.1 pounds N/1,000 square feet weekly for seven weeks in greenhouse study. Images captured at seven weeks after initial treatment.

**FIGURE 3**



**COLBERT HILLS GC RESULTS** Effect of spraying ammonium sulfate (AMS) and urea at 0.1 pounds N/1,000 square feet weekly from May to October on silvery-thread moss (*Bryum argenteum* Hedw.) cover in an infested creeping bentgrass putting green at Colbert Hills Golf Club in Manhattan, Kan. Means followed by the same letter on individual rating dates are not significantly different ( $P < 0.05$ ) according to Fisher's Protected LSD test.

represent the approach many superintendents use) did not result in a sufficiently high spray-solution salt content to cause injury to STM. Higher rates of ammonium sulfate possibly could cause foliar burn to STM (as sometimes happens with turfgrass), but substantially higher rates of soluble N are not typically applied to greens.

Dry weight of STM shoot growth

also was highly affected by N source. Silvery-thread moss treated with ammonium sulfate had twice as much shoot mass compared to moss fertilized with urea, and three times that of the untreated moss. The increased dry weight caused by ammonium sulfate was the result of longer shoot filaments, which ultimately reflects

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increased leaf production. Longer shoots enable STM to better compete for sunlight in the turfgrass canopy, while crowding out desirable turfgrass species. Additionally, longer shoots are more likely to be sheared off and spread

around during mowing, which could increase the infestation in a green.

## EFFECT OF N SOURCE IN FIELD STUDY

Because ammonium sulfate had such a dramatic effect on STM growth in

the greenhouse, we applied the treatments on actual putting greens to see if we could duplicate the results. While N source effects took longer to observe compared with the greenhouse studies, the effects were similar in the end. At Colbert Hills, ammonium sulfate increased STM cover on the last two (out of five) rating dates compared with the untreated, and on the next-to-last rating date compared to urea (Figure 3). By the study's end, ammonium sulfate increased STM cover by nearly 200 percent. Urea increased STM cover by 55 percent, but was not different from the untreated at any rating date.

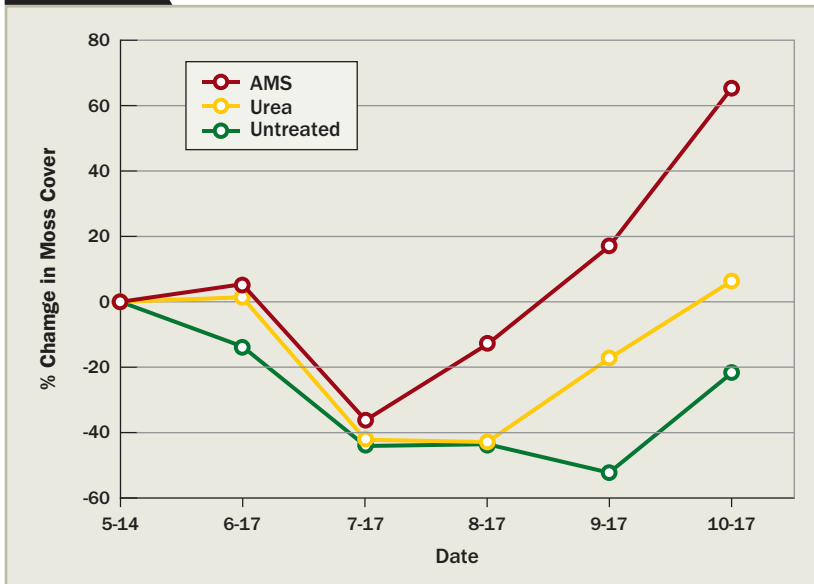
We observed a similar trend at Rocky Ford. Specifically, ammonium sulfate appeared to increase STM cover more than urea and the untreated, but this effect was not statistically significant (Figure 4). However, it was obvious that STM was benefitting from the addition of soluble N, regardless of the source (Figure 5). Silvery-thread moss in plots receiving N appeared to be more robust and grew higher in the bentgrass canopy. Additionally, the distinctive silvery sheen of STM was more pronounced when fertilized with soluble N, making it easier to spot from a distance.

Because we observed the greatest increases in STM cover in September and October (Figures 3 and 4), superintendents should consider applying a selective herbicide, such as carfentrazone-ethyl, in the fall to reduce the competitiveness of STM as temperatures decrease. This is especially important considering that STM is capable of relatively vigorous growth at temperatures as low as 41 degrees F, when the growth rate of turfgrass is low.

## AVOID AMMONIUM SULFATE FOR N

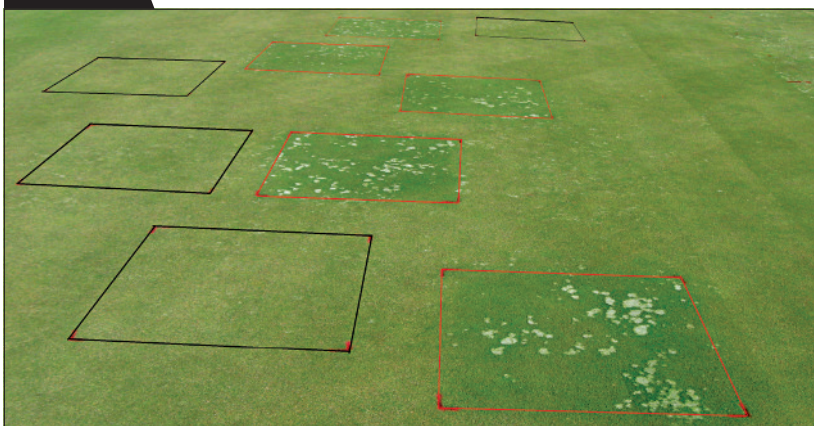
This research supports previous findings that spraying soluble nitrogen throughout the growing season is likely to increase the competitiveness of STM. Additionally, based on our research, superintendents struggling

**FIGURE 4**



**ROCKY FORD TURFGRASS CENTER RESULTS** Effect of spraying ammonium sulfate (AMS) and urea at 0.1 pounds N/1,000 feet<sup>2</sup> weekly from May to October on silvery-thread moss (*Bryum argenteum* Hedw.) cover in an infested creeping bentgrass putting green at Rocky Ford Turfgrass Center in Manhattan, Kan. There were no significant differences among treatments over the course of the study. Negative values represent a decrease in moss cover from the original condition.

**FIGURE 5**



**TEST PLOTS RESULTS** Effect of spraying ammonium sulfate (AMS) and urea to creeping bentgrass plots infested with silvery-thread moss (*Bryum argenteum* Hedw.) Plots highlighted in red were treated with AMS or urea; plots highlight in black are untreated. Photo captured on Oct. 17, 2014 at Rocky Ford Turfgrass Research Center in Manhattan, Kan.

PHOTO BY: ZANE RAUDENBUSH

with STM should limit or avoid use of ammonium sulfate as an N source. Although granular fertilizers have drawbacks for putting green fertilization, previous research demonstrated that granular N sources did not increase STM cover in putting greens. Therefore, superintendents should consider including them in their N fertilization program, especially in the spring and fall when STM is highly competitive.

Additionally, many fertigation programs are designed to inject a small amount of soluble N with every irrigation cycle. While this practice was not directly studied in our research, it seems plausible that fertigating with soluble N will increase the competitiveness of STM.

Superintendents who struggle with STM and choose to spray soluble N should implement an STM control program. Such a program may include selective herbicide use along with cultural practices such as reduced irrigation frequency, cultivation and topdressing.

Zane Raudenbush, Ph.D., recently completed his Ph.D. at Kansas State University, and Steve Keeley, Ph.D., is a turfgrass scientist at Kansas State University. Zane can be reached at zrod12@gmail.com for more information.

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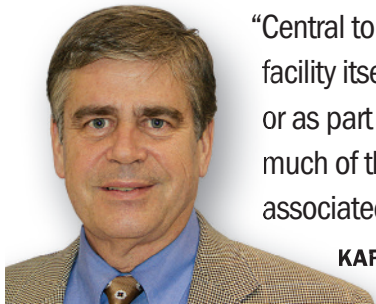
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“Central to a field day is the turfgrass research facility itself. Whether as a stand-alone structure or as part of a larger department field facility, much of the identity of a turfgrass program is associated with that research area.”

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

## Turfgrass research facilities: The core of the program

**T**urfgrass research field days are exciting times for university turfgrass programs. They are days when faculty, staff and students get to show off a little of what they know and what they are doing for the turf industry. From an industry perspective it's a time to learn something new and maybe answer the question, “What do these turf researchers actually do?” No matter how small or large the field day, the core components are the same — the applied research studies.

Aesthetically, field days are just a great time to be out on the expanses of turf, which vary in color and texture due to the different turfgrass species and varieties. Contributing to the “beauty” and the success of the field day is the presence of diseases, insects and weeds. Littered throughout the area are signs of various colors and shapes, which contrast vividly with the green color of the turf.

An industry representative once told me that he judges the success of a field day, and indirectly the success of the turf program itself, by the number of signs present. The more signs, the more studies, the more information being generated. I also like the look of numerous signs, but I reminded him that quality of research is never overshadowed

by quantity. This exchange points out one of the great experiences of any field day: the lack of formality. Professor, superintendent or student intern, everyone is easily approachable.

The informal format of field days promotes discussion between the faculty, staff, students and clientele to address issues or problems using a research study as the conduit to the answer. I just don't see that same type of interaction at conferences, seminars or workshops.

A field day serves as a snapshot of the world of university research, outreach and teaching. I like to think of a field day as the window dressing for turfgrass programs. It is a glimpse into what we do. We can't show a laboratory in a university building where many of

us conduct our more basic research (it's boring to show a pipette), or the technology and techniques used to deliver education, whether in the classroom or as outreach. So field days are a way for turfgrass programs to say, “We can't show you everything we do but hopefully you get an idea of the scope of our programs.”

Central to a field day is the turfgrass research facility itself. Whether as a stand-alone structure or as part of a larger department field facility, much of the identity of a turfgrass program is associated with that research area. The research facility serves as a core for the departments that house turfgrass faculty to conduct research, teach and conduct outreach. It also serves as the center where faculty, staff and students interact 365 days a year.

We at universities are fortunate to work with an industry that is willing to support the turfgrass facilities with equipment, supplies and expertise. Without industry support, our field research facilities would disappear. Unfortunately, even with this support, pressure is increasing to close our field research facilities. As budgets get tighter at the university and college levels, pressure mounts to pay increasing building and land rent and salary costs associated with running facilities. At some land grant universities we have already seen the closing or reorganization of agricultural branch stations.

A major challenge facing turfgrass programs is the sustainability of the field research areas. We need to better communicate the importance of these facilities to those in the industry, and at the same time increase the visibility and viability of these facilities to the general public. If we don't, we will see a rapid decline in university turfgrass programs.

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



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# Silvery thread moss: Know your enemy

*Zane Raudenbush, Ph.D., is a turfgrass scientist who just completed his Ph.D. at Kansas State University, where he conducted research on silvery thread moss biology and control on putting greens. Raudenbush can be reached at zrod12@gmail.com for more information.*

## **Q** Describe the important characteristics of silvery thread moss.

Silvery thread moss (*Bryum argenteum*) is found on every continent, is a C-3 plant like cool-season turfgrasses, does not have xylem or phloem to transport water and nutrients within the plant and can reproduce sexually or asexually. Sexual reproduction results in spores that are thought to be important in initial establishment on a green. Once established on a green, asexual reproduction is the means by which the patches of moss increase in number and size.

Once established, dispersal of moss on a putting green is primarily due to fragmentation and production of bulbils. Fragmentation occurs when a piece of an existing moss plant is broken off and is transported to another part of the green, where it becomes established. Fragments can be moved around a green by aerification, verticutting, mowing and perhaps even by golf shoes.

Bulbils are small bulb-

like structures that are capable of forming a new plant. Bulbils arise from existing shoots, and each shoot can produce up to 10 bulbils. A patch of moss 1 inch to 2 inches in diameter can contain thousands of shoots. It is easy to see how moss spreads on a green by bulbil production alone. Bulbils can be dispersed by foot traffic, maintenance equipment and water from rainfall or irrigation.

## **Q** How does irrigation affect moss on a green?

Silvery thread moss is poikilohydric, which means it is able to survive prolonged periods without water. Withholding water from a green long enough to damage the moss will likely result in severely stressed or dead turf. Because moss has no roots or vascular system, it absorbs water and retains it, somewhat like a sponge. Anytime the surface of moss is wet it will flourish. Therefore, light, frequent irrigation — which is common on a putting green — will favor moss growth. Increasing the number of days between ir-

rigations will help slow the growth and spread of silvery thread moss.

Moss fragments and bulbils are sensitive to drying out. Increasing the number of days between irrigation reduces the number of moss fragments and bulbils that successfully establish on a green.

## **Q** What other approaches are there to controlling moss on a green?

Research has shown soluble nitrogen stimulates moss growth. Unfortunately, moving away from soluble nitrogen sources may not be practical for many superintendents. Under these circumstances, a herbicide application is often necessary to keep the moss population in check.

Quicksilver (carfentrazone) is labeled for moss control on putting greens, and when used properly it is effective. Because moss is a C-3 plant, it grows well in early spring when temperatures are cool and rainfall is frequent. This means the first application of Quicksilver should be applied in early or mid-spring when the moss is green and actively growing. Additional applications every two to three weeks usually are needed in spring. During summer,

silvery thread moss growth slows and the interval between Quicksilver applications can be increased. As favorable growing conditions return in fall, Quicksilver applications may be needed.

There is a limit on the total amount of Quicksilver that can be applied to a green in a year. Fortunately, Quicksilver can be applied at 2 fl. oz./acre and still achieve adequate control.

## **Q** Is there anything else you would like to add about silvery thread moss?

Because aerification and verticutting spreads fragments of moss around a green, and because superintendents often encourage recovery from these practices by irrigation and applying nitrogen — at least after aerification — consider applying Quicksilver three to four days after aerification or verticutting to control any moss fragments or bulbils that get dispersed around the green.



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





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BY GRANT B. GANNON // Associate Editor

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Delivering twice the triclopyr per acre as most combination products, TZone SE Broadleaf Herbicide is the fastest triclopyr combination product on the market, according to the company. TZone SE from **PBI-GORDON** controls more than 60 broadleaf weeds, including wild violet, ground ivy, black medic, oxalis, clover and spurge. TZone SE even

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# The 91<sup>st</sup> Hole



## Brad MacDonald

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**What'd you think of Pinehurst**

**No. 2?** I was blown away. It was special. The greens... it's a whole different game getting the ball to the green and getting the ball in the hole. I'd like to get another try at it.

**Where'd you go to school?** UMass. I still keep up with their teams. I was there in their heyday when they went to the Final Four. They haven't gotten back to that level yet; hopefully that happens in a few years.

**Are you married? Kids?** I've been married for 17 years. We have four children, three girls and one boy. Ages 4, 6, 11 and 12. With sports, everybody is going a different way... soccer, flag football, softball, a little bit of everything.

**Tell me about your course?** Granite Links is a 27-hole, semi-private course that overlooks the Boston skyline. It was built on two landfills, one in the town of Milton and the other in city of Quincy. The material from the "Big Dig" was used to cap the landfill and build a golf course. I've been there 10 years.

**Does the origin of the site cause any maintenance problems?** Not at this point. There's a system that collects the methane gas, and it burns that energy

and sends it back to the grid. But it functions as a regular golf course.

**What's your favorite app on your phone?** Google Drive. You're able to put documents, pictures — whatever you have on your computer — on your phone. It allows me to bring my computer out to the golf course. That, and the 20 weather apps I have on my phone.



**Who are your mentors?** I've got two. Lauren Mann, I started working for him in high school and he got me excited about the business, and Bill Spence at the Country Club. I started there as an intern and left nine years later ready to be a superintendent.

**What's your favorite thing to do off the course?** Anything with the family. The worst part of this job is in the summer we're the busiest, and you miss out on a lot. I like to be involved in their sports, and I like to take them to the beach.

**From oldest to youngest, what are your kids' names?** Molly, Meghan, Andrew and Emily.

**Is Andrew annoyed that he's the only boy?** No, he loves it — he's spoiled rotten!

As interviewed by Seth Jones, Sept. 29, 2015.



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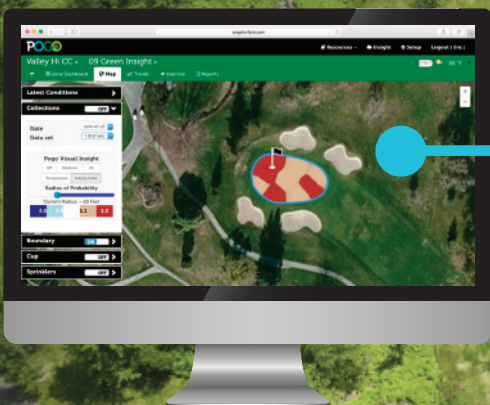
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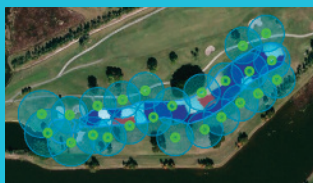
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Visual Insight sees black layer forming before you do.



Identify trends and know how and when to adjust your irrigation, fertilization and cultural practice applications.



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Time	Sprinkler Zone	Wind	Humidity	Temp	Moisture	Salinity	pH	pEC	pEC2	pEC3
10/24/2016 08:00:00	1	0	80%	65	100	10	7.0	100	100	100
10/24/2016 08:05:00	1	0	80%	65	100	10	7.0	100	100	100
10/24/2016 08:10:00	1	0	80%	65	100	10	7.0	100	100	100
10/24/2016 08:15:00	1	0	80%	65	100	10	7.0	100	100	100
10/24/2016 08:20:00	1	0	80%	65	100	10	7.0	100	100	100

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