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SEPTEMBER/OCTOBER 2025



HIGH-TECH DESIGN

How a British design firm is taking golf course design to new heights

A drone comes in to land after it surveyed progress on the construction of Moncayo GC in Fajardo, Puerto Rico.

PLUS

2026 EOP GUIDE

CATCHING UP WITH TRIPP DAVIS

OHIO STATE & RUTGERS RESEARCH PGRS

A NORTH COAST MEDIA PUBLICATION VOL. 81 // NO. 9

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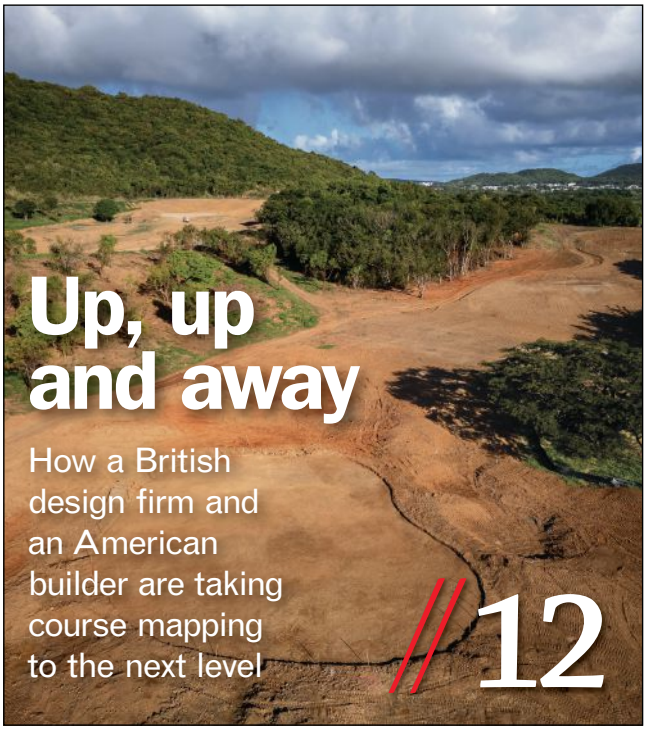
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VOL. 81 // NO. 9

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Up, up and away

How a British design firm and an American builder are taking course mapping to the next level

// 12

The Golfdom Conversation



Tripp Davis

// 27

COLUMNS

// 4 **Keeping up with The Jones**—Seth Jones
Jones overviews the EOP Guide with a special focus on how he's still having fun with the magazine

// 10 **Musings from the Ledge**—Alan FitzGerald
FitzGerald recaps his time in Australia giving an ASTMA presentation and what golf is like from Down Under

// 33 **Off the Record**—Mike Kenna, Ph.D.
A comprehensive history of zoysiagrass and how it came to and grew in the United States

// 42 **The Turf Doc**—Karl Danneberger, Ph.D.
Danneberger explains the growing use of AI in golf and the importance of the data that fuels it

DEPARTMENTS

// 6 **Starter**

// 8 ***Golfdom* Gallery**

// 30 **The Shop**

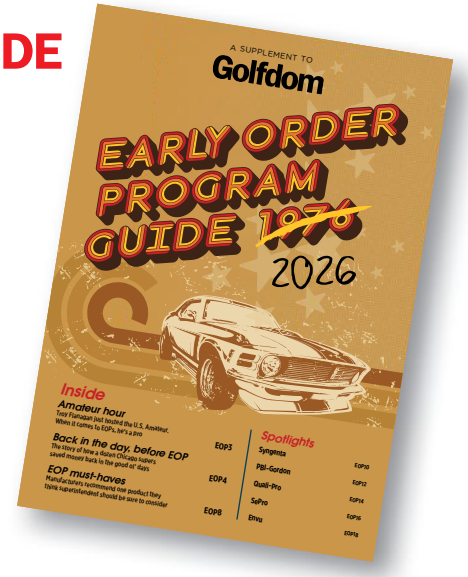
// 44 **The 19th Hole**

SUPER SCIENCE

// 34 **USGA research on plant growth regulators**

EOP GUIDE

// EOP1 (Enclosed with main issue)



COVER PHOTO BY: *GOLFDOM* STAFF

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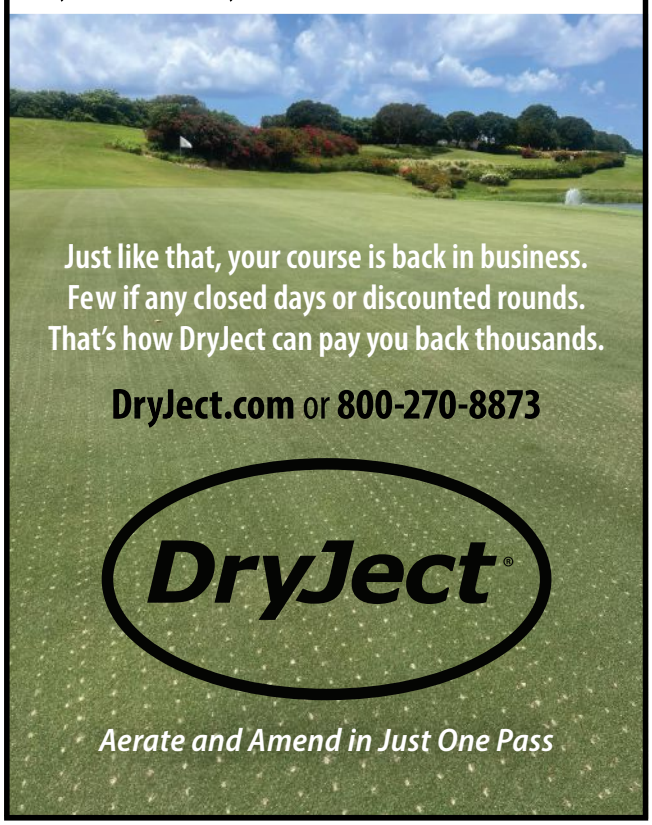
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PGA TOUR OFFICIAL GOLF COURSE EQUIPMENT SUPPLIER



"I'm sure you'll be able to see the amount of fun I had with this issue, starting with this month's cover story — who am I to say no to a quick trip to Puerto Rico?"

SETH JONES, *Editor-in-Chief & Associate Publisher*

My rule No. 1: Have fun

It's my belief that if you're not having fun making a magazine, then you're doing it wrong. I don't know if I learned this in journalism school or if it's something I made up, but I think it's a good rule to abide by.

I'm sure you'll be able to see the amount of fun I had with this issue, starting with this month's cover story — who am I to say no to a quick trip to Puerto Rico to see a golf course under construction? Sure, I just met these guys at the U.S. Open a few months ago, but they seemed trustworthy enough. I'm happy to add guys like Martin Ebert and Chris Huggett, and their cohorts Chris May, John Daniels, Peter Bohn and Wes Pitts to my growing list of friends in the industry. My story on the work they're doing at Moncayo starts on page 12.

It was fun to catch up with Tripp Davis, ASGCA, to talk about his current Athens, Ga., project, The Rose. We also chatted about the work he did at FarmLinks, a course many of us in the industry have had the good fortune to play. An abbreviated Q&A with Tripp is in this issue, and the complete interview is on **Golfdom.com**.

Then there's the 2026 EOP Guide. If I can take a topic like Early Order Programs and still have fun, then I'm in my peak creative mood. And I pulled it off by catching up with some old friends, including a few retired superintendents.

You know the best thing about interviewing retirees? They don't care about what they say! No more Green Committees or members to worry about. If you want to hear the truth on a topic, talk to a retiree. And it was fun listening to two old-school Chicago supers let it rip. I could practically smell the cigar smoke over the phone.

And of course, a tradition I started 13 years ago, we end every issue with the 19th Hole. In this issue I talked with Chad Yotter, superintendent at Mayfield Country Club in Cleveland. Chad, sorry I had to do this one over Zoom; next time we'll do it in person at Masthead Brewing.

I hope you enjoy the September/October issue of *Golfdom* — I know I enjoyed working on it!

Email Jones at: sjones@northcoastmedia.net.





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Starter

NEWS, NOTES AND QUOTES

//WILL THEY SELL SPOTTED COW?



This tract of land near Wisconsin's Erin Hills will be the site of Kettle Forge, a new project from Jackson Kahn Design, Landscapes Unlimited and Steve Stricker.

A NEW GOLF GEM COMING TO WISCONSIN

JACKSON KAHN DESIGN, LANDSCAPES UNLIMITED AND STEVE STRICKER TO CREATE KETTLE FORGE

Located just 8 miles west of this year's U.S. Women's Open host site, Erin Hills, Kettle Forge is about to break ground, with the fall of 2027 set as the anticipated opening.

"Kettle Forge will uniquely look like a natural preserve with grasses, wildflowers and wetlands," said Brett Craig, Principal of Kettle Forge. "It promises to be a course that attracts repeat play — fair to members yet exhilaratingly difficult for those who desire challenge amid rugged elegance and timeless appeal."

Jackson Kahne Design, comprised of architects who have worked with Tom Fazio, will serve as the lead architect. Previous work for JKD includes Conway Farms GC, Lake Forest, Ill.; Monterey Peninsula CC, Pebble Beach, Calif.; Scottsdale (Ariz.) National and St. Lucia Preserve. Scott Hoffman and Steve Stricker will also be involved. Landscapes Unlimited will perform the construction and Landscapes Golf Management will oversee grow-in and operate the club.

"This is pure, unadulterated golf without tennis and swimming," said Bill Kubly, Chairman of Landscapes Unlimited, Principal of Kettle Forge and a Monroe, Wis. native. "Based on our work at Lost Rail outside Omaha, Kettle Forge is likely to reach a full membership before the course opens."

//MR. ANDERSON!

ANDERSON JOINS SYNGENTA TO SUPPORT SPIIO

Sygnenta has named Ben Anderson, CGCS to its expanding digital platforms team, charging him with supporting and growing the adoption of Spiio technology throughout the southeastern United States.



Ben Anderson

With more than 15 years in the turf industry, Anderson has served as a superintendent and played key roles, including capital asset manager, at Club Benchmarking. There, he devised data-driven asset plans for private clubs — a skill set increasingly vital as precision technologies like Spiio drive better turf health and resource management. Previously, Anderson managed the South Course at Cherokee Town and Country Club, where he implemented innovative moisture management solutions.

Syngenta stated that as technology adoption accelerates across golf and landscaping, stakeholders — superintendents, club owners and the industry at large — stand to benefit from informed, sustainable solutions. Anderson's role signals Syngenta's ongoing commitment to supporting turf professionals in making smarter, data-backed choices, according to the company.

//HELP WANTED

GOT AN OPINION? MAKE IT HEARD

We're looking for some fresh blood here at *Golfdom*. If you're reading this right now, it means you still read magazines (yay!) in print or online and you probably have an opinion on topics related to our industry.

The pay is lousy but the perks are pretty cool — just ask Thad Thompson or Alan FitzGerald. If you're interested in giving it a shot, email *Golfdom* Editor-in-Chief Seth Jones: sjones@northcoastmedia.net.

Be prepared for your email to go unanswered for a week or so — Seth has been on the golf course too much lately. (The extra practice hasn't helped; he's still lousy.)

PHOTO: WELLGLAD / ISTOCK-GETTY IMAGES PLUS / GETTY IMAGES (GOLFBALL); COURTESY OF KETTLE FORGE

//SPEECH! SPEECH!

A perfect 10, indeed

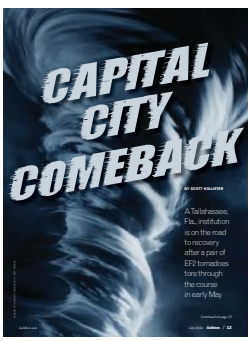
GOLFDOM NABS 10 AWARDS AT TOCA CONFERENCE

Golfdom recently raked in 10 awards at the annual Turf and Ornamental Communicators Association meeting, including a best in show Gardner Award for the magazine's November/December 2024 cover.



"Competing for our readers' precious time is a serious challenge, and we try hard to deliver a magazine that warrants their attention," says Seth Jones, longtime editor-in-chief of the magazine. "I'm thrilled our work was recognized. I'm already looking forward to 2026 in the hopes of doing more for our readers … that's how we go about thanking our superintendent readers."

Awards included:



- **First place, design —** "Capital City Comeback," Pete Seltzer
- **First place, two-page design —** "10 True Tales of Terror!", Pete Seltzer and Bill Morrison
- **First place, portrait photography —** "Camp Counselor," Chantel Elder and Pete Seltzer
- **First place, best single photo —** "A perfect 10," Pete Seltzer
- **First place, best cover —** "A perfect 10," Pete Seltzer
- **First, best short video —** "SePro's Kyle Briscoe, Ph.D., talks StriCore herbicide," Seth Jones and Sydney Fischer
- **First, best long video —** "Joe Langton discusses Automated Outdoor Solutions and the service it offers for supers," Sydney Fischer
- **Merit, series of columns by regular department columnist —** "Keeping up with the Jones," Seth Jones
- **Merit, business management writing —** "Camp Counselor," Seth Jones



//CHIP OFF THE OL' BLOCK

HOUMES JOINS ADVANCED TURF SOLUTIONS

Employee-owned industry distributor Advanced Turf Solutions has added Chip Houmes to the team as the company's technical sales advisor. In his new role, Houmes will provide technical support and sales training across the company.



Chip Houmes

Houmes is well-respected in the green industry and brings 36 years of experience to the table, including many at Precision Laboratories and The Aquatrols Co.

"Chip's expertise and deep product knowledge have earned the trust of many across our industry, and we're fortunate to have him on our team," said Scott Brame, CEO of Advanced Turf Solutions.

"After working as a supplier to ATS, I'm excited for the opportunity to be part of the team," Houmes says. "From the outside, it always appeared like a big family, and now that I'm on the inside, it's exactly what I thought it would be."

//HELLO, NEWMAN

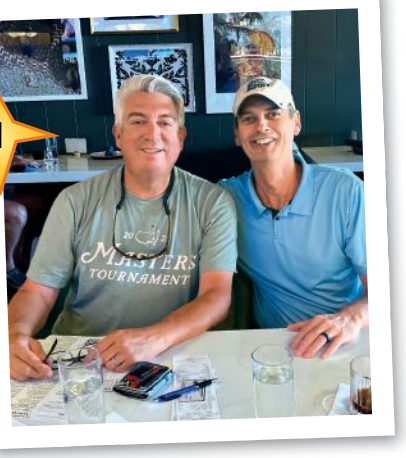
PURSELL AGRI-TECH ADDS NEWMAN

Richard Newman has joined Pursell Agri-Tech as director of NPK sales. This move comes as the company continues to expand its portfolio and respond to evolving demands in the turf and agriculture sectors.

"Richard is already proving to be an asset to the Pursell team," said Tim Ferguson, CEO of Pursell Agri-Tech. "His background, expertise and experience in the industry, alongside his valuable strategic insights, will help amplify the impact of our innovative product portfolio and optimize our collaboration with customers and partners."

Newman brings nearly 20 years of experience in both distribution and manufacturing within the green industry. Newman's role will focus on strengthening Pursell Agri-Tech's NPK product strategy and delivering long-term value to customers. As the company builds on its century-long history, stakeholders across the turf and agriculture markets will be watching to see how this leadership change shapes innovation and customer partnerships.

Golfdom Gallery













1 A win for Winzeler While in Scottsdale, *Golfdom* Editor-in-Chief Seth Jones caught up with T.J. Winzeler, former superintendent, to learn about his exciting new job as a turf agronomist for the Southwest region for Redox Bio-Nutrients.

2 What a way to go In beautiful Park City, Utah, and just days before his official retirement, Bill Roddy, group publisher, North Coast Media (left) and Scott Hollister, editor, *Golfdom* (right), toasted David Thorne, OPEI's board chairman and, at that time, vice president, turf and compact utility business unit for Deere & Co.

3 Arizona adventure Michael Maravich, national turf products manager, Ewing Outdoor Supply, showed Jones some of his favorite hot spots in Old Town Scottsdale.

4 Medalla Lights all around! While on assignment in Puerto Rico, the Moncayo crew took Jones out for dinner — and a few Medalla Lights, the official beer of Puerto Rico — on the coast. From left to right are Peter Bohn and John Daniels, both with Heritage Links; Jones; and Chris Huggett and Martin Ebert of Mackenzie and Ebert.

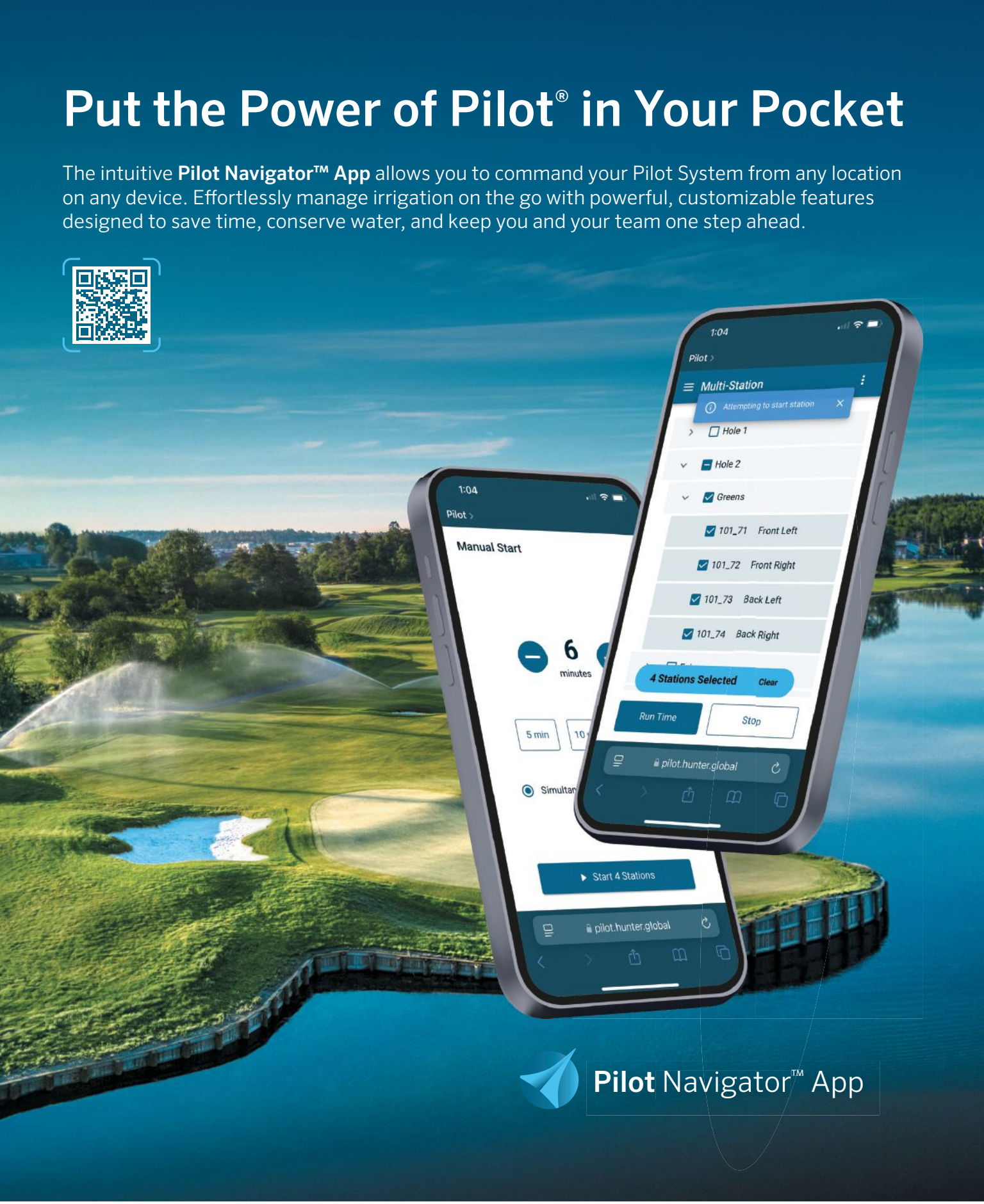
5 Machine men Roddy got the opportunity to visit the headquarters of FireFly Automatix in Salt Lake City and was given the grand tour by Andrew Limpert, CEO (right).

6 Bon voyage! Peter Bohn, construction manager, Heritage Links; Jones; and Wes Pitts, CGCS, Heritage Links, took time for a quick photo before Seth flew back to the States.

PHOTOS BY: *GOLFDOM* STAFF

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"It's the Australia Sports Turf Managers Association asking if I would like to speak about the First Green at their conference in June. It took a few minutes to absorb this…"

ALAN FITZGERALD, *CGCS, MG*
Rehoboth Beach (Del.) Country Club

A surprise email from Down Under

It's a late November morning; we have a frost delay and I'm going through my emails. Junk, delete; ad, delete; *Golfdom*, keep; junk, delete; ASTMA request, delete. Oh wait, what was that?

I go to the trash folder. It's the Australia Sports Turf Managers Association asking if I would like to speak about the First Green at their conference in June. It took a few minutes to absorb this, then after working out it's not some Nigerian prince phishing or a friend pranking me, I replied with a "What an honor, let me look into taking off in June," and other than that being an issue, it's a yes!

I called my wife, and she thought I was pranking her, but then she immediately announced that I'm not going without her, which might have been to force me to come clean or, if not, just to ensure she was coming. I've never been away from the course in the summer for more than a few days, so it was weird considering it at first. I've mentioned before that there are two amazing assistants at Rehoboth Beach Country Club, so that took a lot of pressure and worry away about leaving for a few weeks. The club was delighted I had the opportunity, so it was an official yes!

I should have asked at that point what else I had to talk about. The First Green was easy, it was one I'd done several times before, but then came the, "You've had an interesting journey from Ireland to Delaware … so talk about yourself." It should be a subject I know well, but it turns out that 50 minutes talking about yourself while not boring a room full of people is trickier than you would think. Thankfully, I've worked at some great properties, and that was my hook; I could chat about them.

My biggest fear is always running out of time, so that PowerPoint was picture-heavy, so sorry to all of my new Aussie friends for the dizzying end as the pics flashed by.

My last talk was on building a workplace culture. After an initial panic that I didn't think I knew anything about that subject, I realized that I live it every day thanks to the "Talon Tribe" at RBCC, so it came together easily. Maybe because it was my last talk, but it turned out being the best one. So much for worrying about it.

After I confirmed that I was going, the next question was can I see the Sand Belt courses in Melbourne. I was *not* traveling that far just to not see them. Royal Melbourne and Kingston Heath didn't disappoint — incredible doesn't come close to describing them, and a huge thanks to Hayden at Kingston Heath and Paul at Royal Melbourne for taking the time to show us around and talk Australian turf. The turf management practices there are nothing like I had even heard or thought about before, so it was a huge learning experience.

After the first few days in Melbourne, we were back in Sydney for the conference, and luckily we had a little time to see the sights. We took a few vacation days and went to Cairns and the Great Barrier Reef and eventually back home in what felt like a whirlwind, from it being months away to it being over.

Most of us don't like public speaking, and I'm not an exception, but having been "forced" into it over the years, I have slowly become more comfortable — although not necessarily any better! I'm glad that I stepped out of that comfort zone, as I never considered it would create an opportunity like this. It's easy to say to put yourself out there and try something that makes you uncomfortable, but in this case, I can say it worked!

I can't thank Bruce Macphee, Mark Unwin, Simone Staples, Tim Fankhauser and everyone at the ASTMA enough for inviting me and giving me an amazing education on how it's done Down Under. Cheers, mates!

Alan FitzGerald (superintendent@rehobothbeachcc.com) is superintendent at Rehoboth Beach (Del.) Country Club.

STEC EQUIPMENT

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UP, UP AND AWAY!

How a British design firm and an American builder are taking course mapping to the next level

BY SETH JONES

According to TravelMath.com, the distance from Little Rock, Ark., to Fajardo, Puerto Rico, is a little under 2,000 miles. The distance from West Sussex, England, to Fajardo is much farther — 4,182 miles.

With three places so fajardo — sorry, *far* — away from each other, how is it that the three locations can come together to build a golf green to within centimeters of accuracy of the contour map?

And what else could drone technology eventually do for a course?

What you see is what you get

Moncayo Golf Club is currently under construction on the eastern seaboard of Puerto Rico. Scheduled to open in about 18 months, the plan calls for a 7,200-yard 18-hole championship course along with a one-acre putting course and a reversible nine-hole short course. An active construction site today, the vision is already shaping up: plenty of elevation changes along the base of the El Yunque Mountains with wide-angle views of the Caribbean Sea.

U.K.-based Mackenzie & Ebert are designing the project, their first in the Caribbean, with Houston-based Heritage Links contracted as the builder. Longtime superintendent Chris May — who has stints in the Desert Southwest, the Caribbean and Asia on his résumé — joined the team two years ago as the director of agronomy. Fellow Heritage Links staffers include John Daniels, project manager (previously a USGA agronomist); Peter Bohn, longtime construction superintendent who has worked with a who's who of architects; and Lawrence Aslarona, who has been with Heritage for more than 20 years, building courses in the U.S., Asia and the Caribbean.

Another player is also actively involved: Chase Ertzberger, who works for Lexicon, parent company of Heritage Links. Consider Ertzberger "remote staff" — he regularly pilots Moncayo's drone, mapping the course from his office in Little Rock, Ark.

"When you think about drones, the most straightforward use case scenario is getting some pretty pictures, seeing what things look like, things that look good from a perspective you couldn't easily achieve normally," Ertzberger says. "What we're generating is data where it has such a high resolution, while

Continued on page 14

PHOTO: KRULLUA / ISTOCK / GETTY IMAGES PLUS / GETTY IMAGES (HEADER)



This drone shot was taken in Puerto Rico but piloted by an operator in Arkansas who was connected via Starlink internet.

IMAGE COURTESY: HERITAGE LINKS



Chris May (left), Martin Ebert (center) and John Daniels look at the current state of a green under construction at Moncayo GC. "It's not just for the greens. We're defining the proposed levels for the whole golf course," Ebert says.

PHOTO BY: *GOLFDOM* STAFF

Continued from page 12

maintaining survey-grade accuracy, (that) we can achieve in 30 minutes to two hours of flying and work what may have taken a manned survey crew days to weeks in the past."

With Heritage Links contracted for the project and their remote drone operator just a phone call away, Mackenzie & Ebert are striving to take golf course construction, especially the art of building greens, to the next level.

"We're applying every possible item of technology to what we do, because we produce to that level of detail," says Martin Ebert, partner, Mackenzie & Ebert. "We design greens in AutoCAD. But the real difference is in the construction. We're asking contractors to build exactly to our plans. And that's a bit of a shock to some of them. They're used to receiving plans as a guide, rather than as, 'absolutely, *this* is what we want.' We like to see exactly what we've drawn."

Continued on page 16

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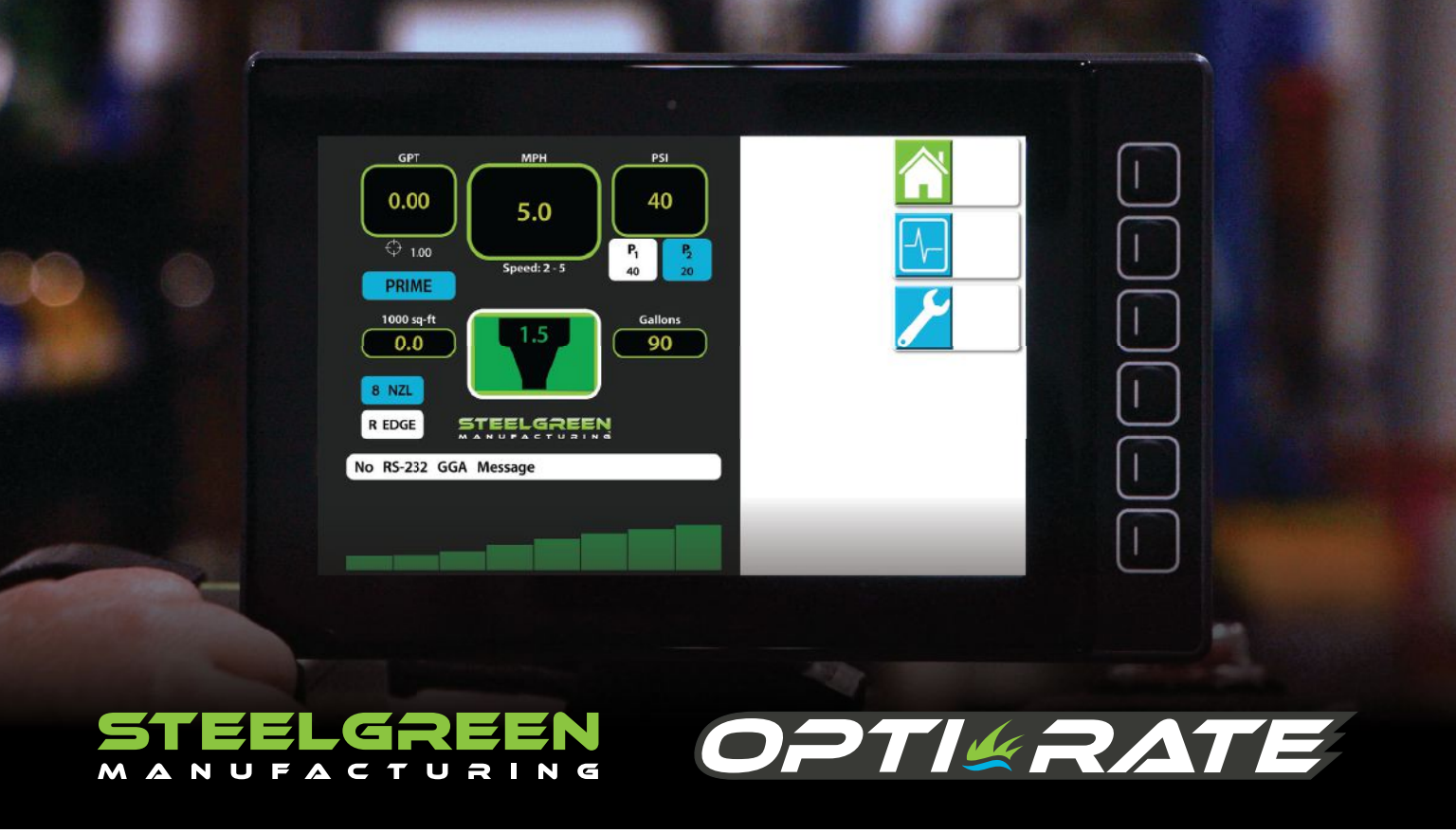


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Continued from page 14

Endless information

John Daniels calls the approach of Mackenzie & Ebert a "much more calculated" way of designing, shaping and building greens. He says in many new golf course builds, GPS is used to lay out the perimeter of the greens and overall elevation of the surface. The individual contours are added based on simple drawings and rely on interpretation by shapers in the field.

"This approach we are following here at Moncayo is much more detailed. We're building every single contour exactly how it has been designed, down to the smallest detail on each green," Daniels says. "We're using three different technologies to achieve this — we're using GPS on the ground, GPS in the air with the drone and also an old-school laser."

Topographic maps are then produced for each putting green, showing where adjustments are needed and using a common color system: White areas are good, dark red is up to two inches too low, dark blue is up to two inches too high.

"When I started back in 1990, our old boss didn't draw any plans at all," Ebert recalls. "It was just arm-waving with people on machines. When my partner, Tom (Mackenzie), came on, he had a landscape architecture background. He was doing sketches that looked great. Then we started drawing contour plans. We had to put the same piece of paper through the photocopier three times to get black, red and green on it — it was crazy."



Building a new golf course requires lots of "big iron," such as this pair of Caterpillar 330B workhorses.

> "WHEN YOU THINK ABOUT IT, IT'S ALL INFORMATION, AND IT'S JUST ENDLESS."
> — CHRIS MAY

That method is a distant memory from how the architects work today. Ebert savors his modern approach to imaging and then creating greens from the viewpoint of a designer. From the perspective of Chris May, he appreciates it based on his viewpoint as the owner's representative. He is quick to get out his phone and show the information available to him in real time using TraceAir software.

"These guys brought the tech in, and we had enough knowledge to figure out how we want to use it," May says. "It's very graphic. It saves an immense amount of time. You've got to be committed to it or you'd be (overwhelmed)."

While pointing at a map on his phone, he continues, "I can now survey an empty lake. How much water is that lake going to hold? We know exactly how much it's going to hold at that line, that line and that line. When you think about it, it's all information, and it's just endless."

Mind over matter

Ebert stresses that even though the sophisticated images they're getting allow them to make decisions from afar, they're not absentee designers. He and chief operating officer Chris

PHOTO BY: HERITAGE LINKS



Huggett make monthly visits to Puerto Rico to see the progress up close. Or in the case of Ebert, from the seat of an electric bike which he proudly races around the course.

"It is sophisticated, but once it's set up, it makes calculations and decision-making so easy," May says. "These guys are in the U.K., and we're here. They draw it and put a lot of time into it. But the things you can do online now are just incredible."

Credit much of that technological sophistication to Huggett, who has been with Mackenzie & Ebert since it formed in 2005. Originally responsible for graphic design, he now specializes in combining technical and creative design with 2D and 3D visualization, analysis, drafting and documentation. That includes building a CGI 3D model of what a proposed golf course would look like on a site before a single shovel of dirt is turned.

Continued on page 18

First look: No. 18

Golfdom was granted an exclusive first look at Moncayo, 18 months prior to the scheduled completion of the project. Peter Bohn, construction superintendent (pictured left), gave *Golfdom* readers a video tour of No. 18. To watch the video, visit **Golfdom.com**.



PHOTO BY: *GOLFDOM* STAFF

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Continued from page 17

"I was given a remit to push the company to the front using technology," Huggett says. "And not necessarily in golf course design, but looking elsewhere as well. We've been using drones for a long time now. The main thing is mapping — lidar technology mounted on drones, through to photogrammetry techniques and also videography and photography — to explain to our clients what we're looking to produce."

Ebert adds that he doesn't want to discredit those who "wave their arms" as their method of design. He does believe that a good course can be built without plans, but he argues that he can build a really good course with plans.

"Some people say you can only build a golf course when you're sitting on a machine," he says. "We actually believe that our minds are the machines — the bulldozer and the excavator — when we're sitting there drawing the plans, trying to imagine every little detail."

> "SOME PEOPLE SAY YOU CAN ONLY BUILD A GOLF COURSE SITTING ON A MACHINE. WE BELIEVE THAT OUR MINDS ARE THE MACHINES."
> — MARTIN EBERT

A superintendent can dream

Chris May may be the ideal superintendent to cross paths with the team at Mackenzie & Ebert. He drives an electric car, uses a drone to make liquid and granular applications and has already employed a FireFly Automatix robotic mower at Moncayo to mow the turf nursery.

"It doesn't stop to text, it doesn't get lost, it doesn't weave," May says about the FireFly. "There used to be a lot of pride (mowing straight lines), but today, you tell someone to mow counterclockwise? Half the time, if they do it, it's the wrong way, and it's just deadly."

When it comes to drones and what they could someday mean for superintendents, the sky is the limit, he says.

"Trees are very sensitive here in Puerto Rico. We had to hire an engineer, a surveyor with tree knowledge to tag the trees before we did any clearing. These guys were on-site for two years," May says. "Then we needed to give an estimate of an area along the mountaintop that we were going to suggest for conservation. They told us it could take six months. I told them — I can count every tree on that hillside above whatever meter you want, and I can count it in about 20 minutes, and then did it. Of course, they didn't like that!"

Perfection is not attainable

When Ebert and Huggett arrive in Puerto Rico, things move pretty fast for the duo. A lot needs to happen in a short amount of time. That might be why Ebert likes to ride the course on that electric bike — he can see more of the course up close while he's moving from place to place.

"I hate buggy golf, even though it's a fact of life," he says. "Hopefully (the bike) keeps me a little fitter, makes up for all the great food and beer here in Puerto Rico."

Back in the construction trailer, Daniels reflects on the uniqueness of working with Ebert and Huggett. He recalls when Huggett called him out to review a green edge.

"I've never had anybody critique the perimeter of a green that was six inches off in one spot. Normally, if a green gets a few inches narrower or wider, it goes unnoticed," Daniels recalls with a laugh. "They go, 'Here, it's a little bit too narrow there.' I said, 'Is that important?' Then I realized, it's important to you guys."

"Just for the record," Ebert says while looking at Huggett with a sly smile, "I would have let that one go."



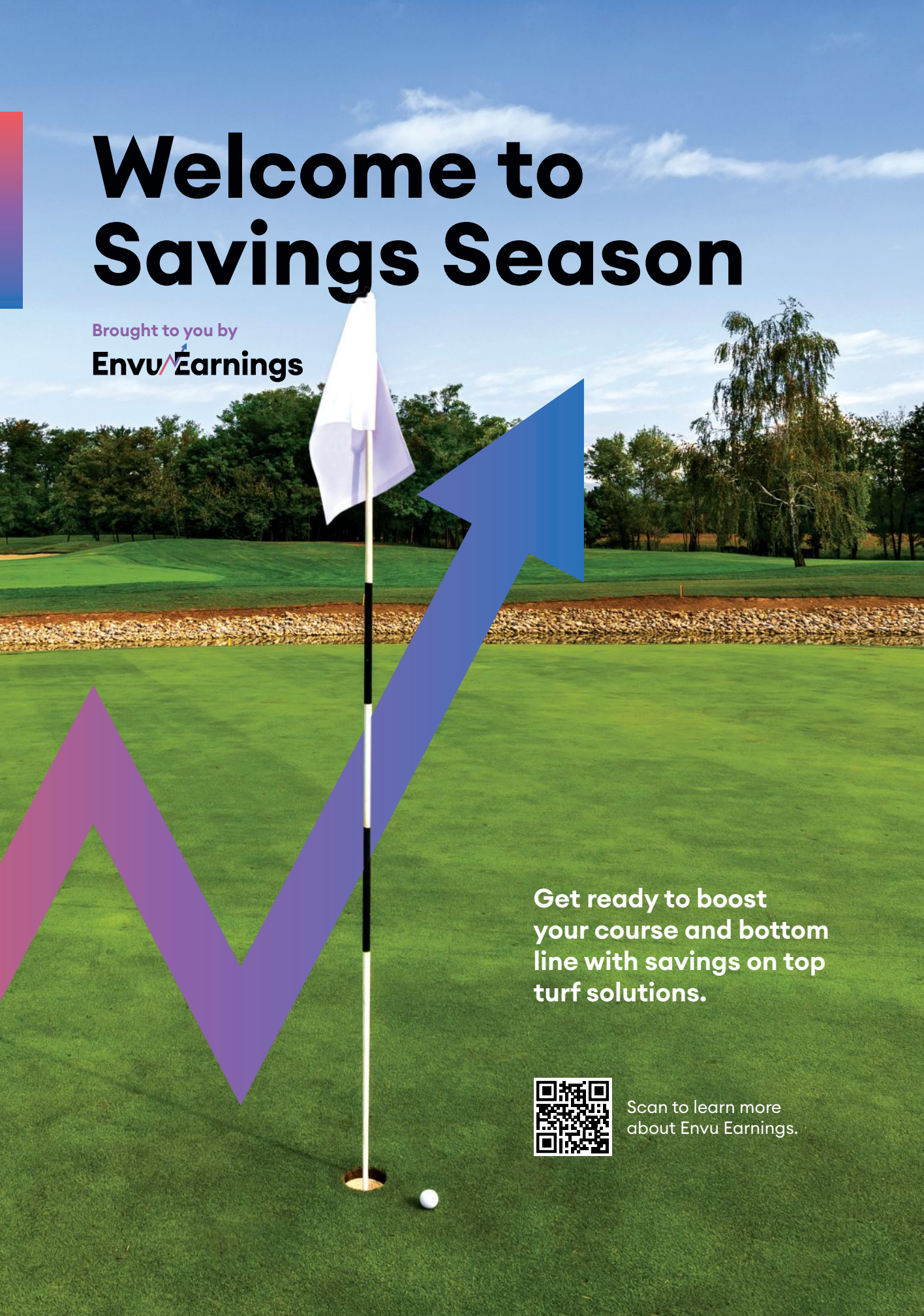
Samanea saman, often referred to as saman, rain tree or monkeypod, like these two on No. 18, have been carefully transplanted to ideal locations on the course.

IMAGE COURTESY: HERITAGE LINKS

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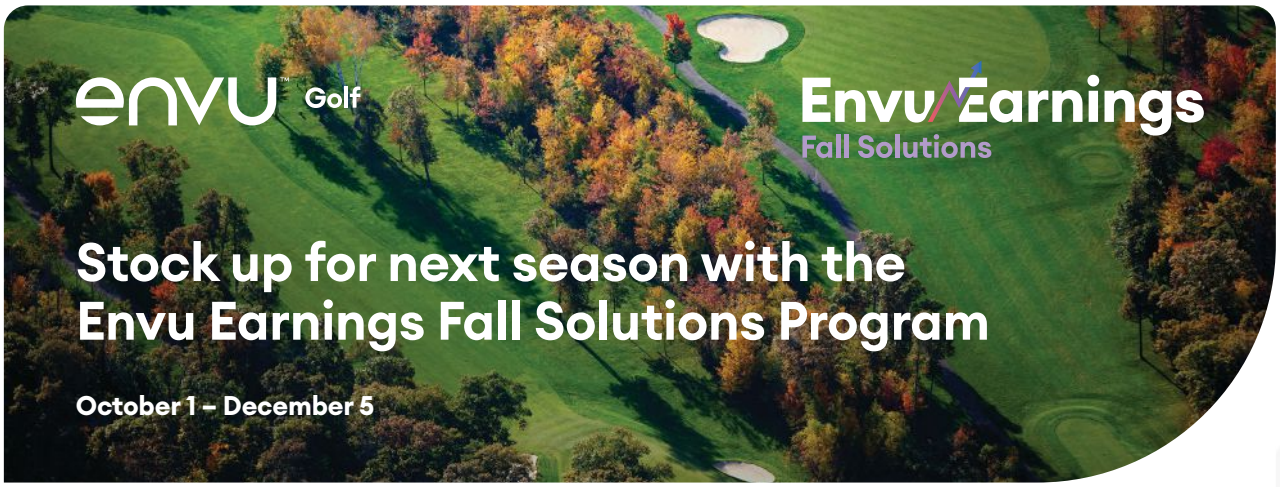
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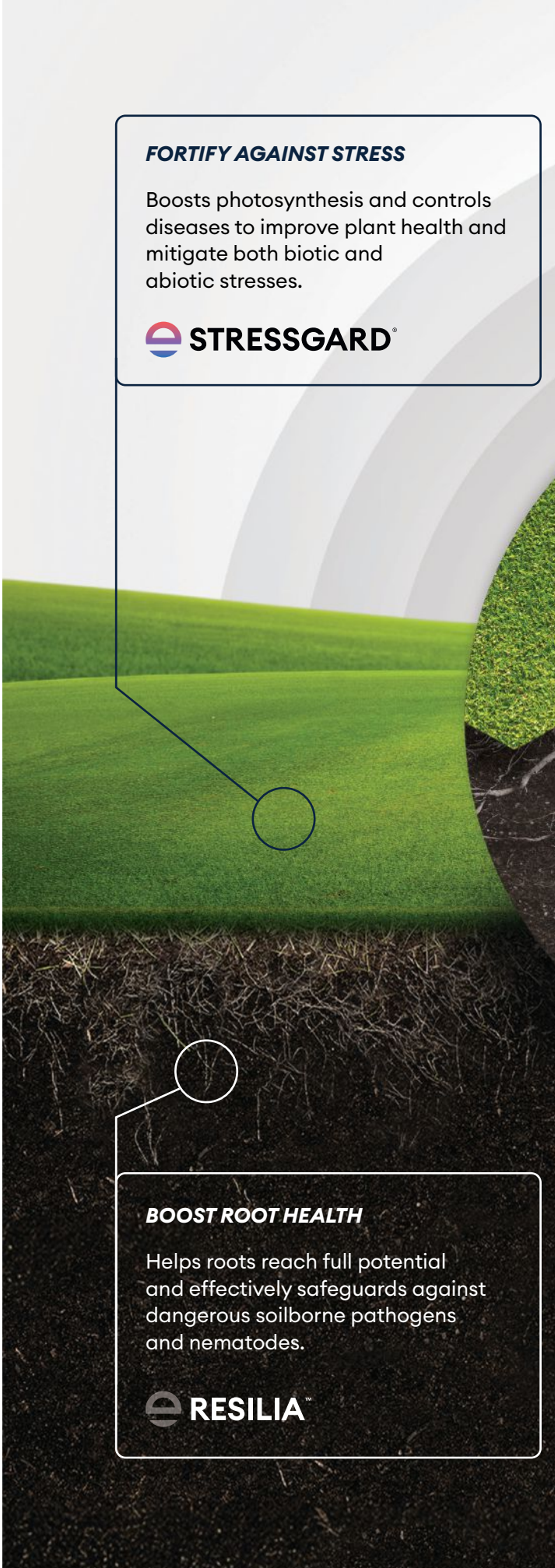
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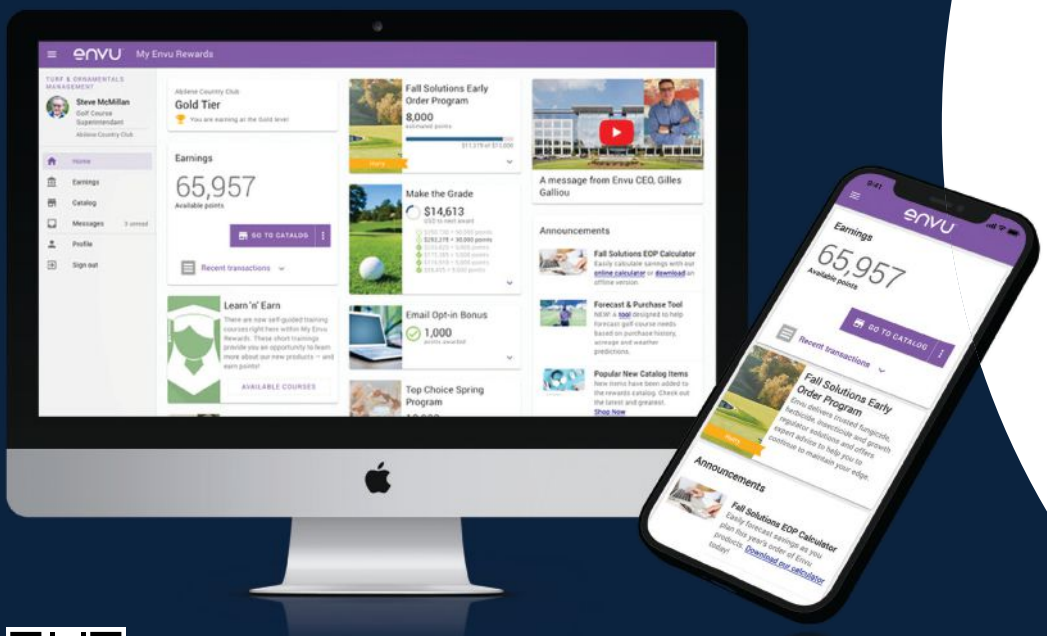
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A Rose for Tripp

Tripp Davis, ASGCA, talks The Rose and current bunker trends

Q&A BY SETH JONES

A member of the 1989 Oklahoma Sooners national championship golf team, Tripp Davis, a member of the American Society of Golf Course Architects, has been around the game all his life. While growing up in Atlanta, he was a three-time American Junior Golf Association All-American. After graduating from OU with a degree in marketing and advertising, he returned a few years later to get his masters in landscape architecture.

Following a brief stint working for Charles Howard, Davis formed Tripp Davis and Associates. A lifelong student of golf course architecture, Davis combines his passion for architecture with his insights as a lifelong elite golfer. The company's projects include The Tribute, The Colony, Texas; Coldwater Golf Links, Ames, Iowa; and the restoration of Engineers CC, Roslyn, N.Y. Currently, Davis is working on The Rose, a new build near Athens, Ga.

Golfdom: Tripp, thanks for taking some time for *Golfdom*.

Tripp Davis: You bet, I'm always interested in talking golf, and especially with the readers and people who pay attention to your stuff.

Golfdom: I want to talk about The Rose, but before we go there, I see you did a bunker renovation at FarmLinks at Pursell Farms in Sylacauga, Ala., recently. That's a course that's near and dear to a lot of our readers. Tell me about that project.



Tripp Davis

Davis: So, a company named Escalante, — they're an ownership group out of Fort Worth — they came in and are part owners with the Pursell family of the golf course. I don't know all the specifics of how it all works, but they were in need of a bunker renovation, and we went down and looked at it.

It's an incredible property. With Dana Fry's blessing, we told them that we were going to go in and try to make things a little more efficient in places. Remember, the golf course was somewhat of an experimental place. There's a lot of different types of grasses. We got them on a program to move forward with less grasses, because it's less of an experimental place now and more of a really cool resort to hang out at.

We also wanted to get the bunkers in a shape where they could be more manageable. There was a lot of sand out there. We tried to efficiently reduce some of that, get it to where the bunkering was more strategic, a little bit less visual. It was a project where they said, "Minimize the bunkering so it's more efficient." It would have been a shame to strip away some of what Dana and his guys had done, it was such a good job visually. It was largely an infrastructure project.

Golfdom: Any time you improve bunker maintenance, that's a win. How do you accomplish that?

Davis: There's a couple of things as it relates to bunkers and the cost of maintaining them. One is the type of system you put in relative to your climate, and the type of sand you're using. Those are the two main things.

The way the game is trending, we're getting a lot more players who are not as good out of bunkers — fairway bunkers or greenside bunkers. In a lot of our work, we are reducing the amount of bunkering for a couple reasons. One is maintenance, and then the other is just playing quality.

Golfdom: I would never ask you to endorse a bunker system, but I'm curious if there are any systems you're particularly interested in or new systems that you're looking forward to learning more about?

Davis: It goes back to the type of sand you're using and the climate you're in. And one thing I left out is the style of the bunker. We've done something interesting at The Rose, and we also did it at Wichita (Kan.) Country Club, in that we're using Better Billy Bunker on the fairway bunkers, because that system tends to keep the sand firmer, and you're not as worried about balls plugging in faces. And we're using Zline on the greenside bunkers, because it's going to hold the sand in the face better when we tend to have higher, steeper sand. We're also looking for that sand to be capable of being maintained, not as firm, a little softer. And so, by doing two different types of bunker liners on one

Continued on page 28

Continued from page 27

golf course, with fairways getting one type and greensides getting another, you're easing the maintenance because it's easier to keep them firm and flat on the fairway, and it's easier to keep them a little softer around the greens.

Golfdom: You mentioned The Rose. You're out in Athens, Ga., right now, a great college town. I know this is still in the construction phase, and you're working with Bubba Watson, but what else can you tell me about The Rose?

Davis: The two founding guys were Nick Cassini and his brother Dimitri Cassini, and they are members at Atlanta Athletic Club. I had known Nick from back when I was playing amateur golf. He's about 10 years younger than me. After I finished my playing career at Oklahoma and went to grad school and got my master's degree in landscape architecture, I started trying to put food on the table. I started playing a little amateur golf again, and I played with Nick in the final round of the Porter Cup up at Niagara Falls Country Club. And we were, like, the second or third group from the last group. I think I got around in 70, maybe 71, and finished about 10th, and he shoots 63 or 64 and wins the tournament.

We kept in touch, and when we did Atlanta Athletic Club, right after it opened, he came to me and said he and Dimitri were looking at doing a project, and they wanted to do it in Athens. They wanted to be a little bit out, something less than 20 minutes back to the football stadium. We looked at two sites — one was too hilly; the other one was too flat. Then a third one came into consideration. They sent me the topo maps, and it just looked like it had a nice roll to it. There are places that actually get kind of steep, but it's such an interesting site. So, they put together a group of founding members, Bubba Watson being one of them. Chris Kirk and Brendon Todd, who both play on the Tour, are also founding members. There's a bunch of former Georgia players that have ended up getting involved. And it's not affiliated with the University of Georgia, but I'm quite sure that if you go out there most any day, you're going to see a Georgia bag.

It'll be a fairly small private club. It's all about golf, and it's just an incredible site to work with. And we're hopefully getting everything grassed here in the next two, three months, and opening on, I don't know what the first home football game is. They may wait for a really good game, but it'll be September of 2026 when it opens.

To watch the entire interview with Tripp Davis, visit **Golfdom.com**.





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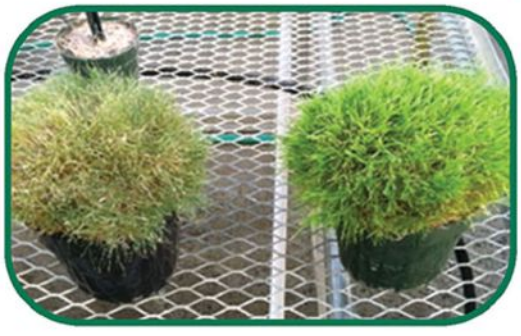
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2 Ranger

The new Ranger 2026 lineup was recently unveiled by **POLARIS**. Included in the launch is the Ranger XP 1000 NorthStar Premium (pictured). The XP 1000 lineup upgraded to 29-inch Pro Armor X Terrain tires, featuring an innovative tread that reduces noise. The Ranger offers a 1,000-pound box capacity and 2,500-pound towing capability and is backed by a two-year limited warranty. The enclosed cab offers heating and cooling along with a 7-inch display. The Sportsman lineup offers on-demand all-wheel drive that delivers instant traction, as well as a 3,500-pound winch factory-installed.

Polaris.com

3 Torrent 2

TURFCO recently announced the next generation of its powerful and efficient Torrent 2 Debris Blower. The blower now includes operator-friendly icons added to the popular MagnaPoint Technology, making clearing debris even easier. The upgrade also introduces remote start and stop to provide greater control during use. Using the patented, hand-held controller multiplies operator productivity with a new remote start/stop feature in addition to a patented idle/resume button. The new start/stop feature can be utilized to quickly shut down and restart the engine to allow golfers to play through without distraction.

Turfco.com

4 3000LV Equipment Lift

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Bernhard.co.uk/products/equipment-lift

5 Terra Core 6 and 8

WIEDENMANN NORTH AMERICA recently announced the introduction of Terra Core, a line of highly efficient shallow aerifiers available in two sizes. The Terra Core 6 is intended for use on greens, tees and sports fields. Its compact design (58 inches wide) easily follows greens undulations. It features six aerification arms and heads and may be deployed using a small tractor. The Terra Core 8 is intended for use on fairways, tees and sports fields. Its wider working width (78 inches) covers larger areas in a relatively shorter period of time. It features eight aerification arms and heads. Both aerifiers work in a straight-hole pattern, with depths down to four inches.

WiedenmannUSA.com







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6 | Targhee IV Waterproof Work Boot

Bringing the comfort of a trail-tested hiking boot to the golf course, the Targhee IV Waterproof Work Boot from **KEEN** offers superintendents and crew members a breathable membrane for waterproof comfort both indoors and outdoors. The boot includes a carbon-fiber safety toe for lightweight protection and oil- and slip-resistant outsole with aggressive tread for increased traction. A reinvention of the company's hiker boot, the Targhee IV has an air-injected underfoot sole and is built using responsibly sourced materials from around the world.

Keenfootwear.com

7 | Once-a-Year Pond Plant Fertilizer

The new Once-A-Year Pond Plant Fertilizer from **AQUASCAPE** is a time-released formula that feeds aquatic plants for up to 180 days with a single application. With low phosphorus to minimize algae and no excess nitrogen — helping to reduce plant stress — it promotes strong growth and vibrant blooms. High potassium boosts flowering, making it perfect for waterlilies, lotus and other pond plants. Available in capsule and granular formats, Once-a-Year Pond Plant Fertilizer delivers professional-level results, the company says.

Aquascapeinc.com





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"Reverend W.M. Baird, a missionary in Korea, introduced additional varieties in the early 1900s."

MIKE KENNA, PH.D., *Research Editor*

An American history of zoysiagrass

In 1894, Frank Lamson-Scribner, a leading agrostologist, mentioned *Zoysia* in a government report for its potential for lawns and pasture. In 1892, J.B. Olcott, a turfgrass enthusiast, cultivated a fine-textured *Zoysia* matrella in his experimental turf garden, which he had obtained from Japan through the Yokohama Nursery Company. John M.B. Sill, the U.S. consul-general in Korea, also sent *Zoysia japonica* seeds to the USDA in 1894.

These early introductions from Japan and Korea would become the foundation for zoysiagrass. Over the next few decades, plant explorers and missionaries joined the search for exceptional turf. Reverend W.M. Baird, a missionary in Korea, introduced additional varieties in the early 1900s. Around the same time, botanist David Fairchild introduced a velvety grass from southern Japan — believed to be either *Z. matrella* or *Z. pacifica* — a stunning yet frost-sensitive species admired for its lawn appeal.

Frank N. Meyer, a prolific collector in Korea and China during the early 20th century, brought back numerous zoysiagrass samples described as ideal for both golf courses and home lawns. In 1912, Charles V. Piper introduced *Z. matrella* from the Philippines, giving rise to the popular term Manilagrass. From the Bonin Islands near Japan, a grass known as Mascarene grass — now identified as *Z. pacifica* — arrived in 1912.

In the 1930s, USDA explorers P.H. Dorsett and W.J. Morse journeyed through Asia in search of new turfgrasses. In 1940, one of their selections became the experimental cultivar Z-52. USDA scientists Ian Forbes, Jr., and Marvin Ferguson, along with the USGA's Fred V. Grau, are credited with its selection. Z-52 was released as 'Meyer' in 1951, named after the explorer Frank Meyer. Today, it is still produced in 17 states in the U.S.

In the 1920s and 1930s, golf courses in Florida and the Midwest began planting zoysiagrass. By the 1940s and 1950s, zoysiagrass was gaining traction. The seeded variety 'Sunburst' was introduced in 1951, and in 1955, 'Emerald' zoysiagrass was released — an attractive shade-tolerant hybrid targeted for Southern lawns. Later, William H. Daniel, Ph.D., at Purdue University, released 'Midwest' in 1963, which surpassed Meyer in cold tolerance.

Today, these three main species — *Z. japonica, Z. matrella and Z. pacifica* — are known as zoysiagrass, valued for their dense turf and tolerance to varying climates in the U.S. Genetic studies later confirmed that this trio forms a continuum of traits, suggesting they might not be distinct species but different ecotypes of one species. This ambiguity led to the general adoption of the single common name: zoysiagrass.

Zoysiagrass breeding intensified in the 1980s, led by Milt Engelke, Ph.D., at Texas A&M and Jack Murray of the USDA. They collected more than 800 zoysiagrass samples from Asia in 1982, thereby dramatically diversifying the gene pool. From these efforts, standout cultivars like 'Belair,' 'Diamond' and 'Zorro' were born.

In 1996, private breeder David Doguet released 'Zeon' and 'JaMur,' two of the most successful commercial cultivars to date, developed from Murray's collection. Zeon, in particular, became a favorite on golf courses. In 1999, Sod Solutions introduced 'Empire,' developed in Brazil and widely adaptable.

The 2000s saw many new releases. With more than 30 new cultivars introduced in the last two decades, zoysiagrass has emerged as an alternative to bermudagrass cultivars. By 2015, more than 25,000 acres of zoysiagrass covered U.S. golf courses, primarily in the transition zone and Southeast.

Read a more in-depth summary from "Zoysiagrass (Zoysia spp.) History, Utilization and Improvement in the United States: A Review" by Patton, Aaron J., Schwartz, Brian M., and Kenworthy, Kevin E. (2017) at **bit.ly/45W2dES**

Mike Kenna, Ph.D., retired director of research, USGA Green Section. Contact him at mpkenna@gmail.com.

//BACK TO SCHOOL

New USGA research evaluating plant growth regulators

By Mike Kenna

The USGA continues to support research evaluating plant growth regulators and how they impact new creeping bentgrass cultivars, fertilizer rates, or how they could even help transition from annual bluegrass to bentgrass. Two research projects currently underway, one at Ohio State University and the other at Rutgers University, are summarized in this article.

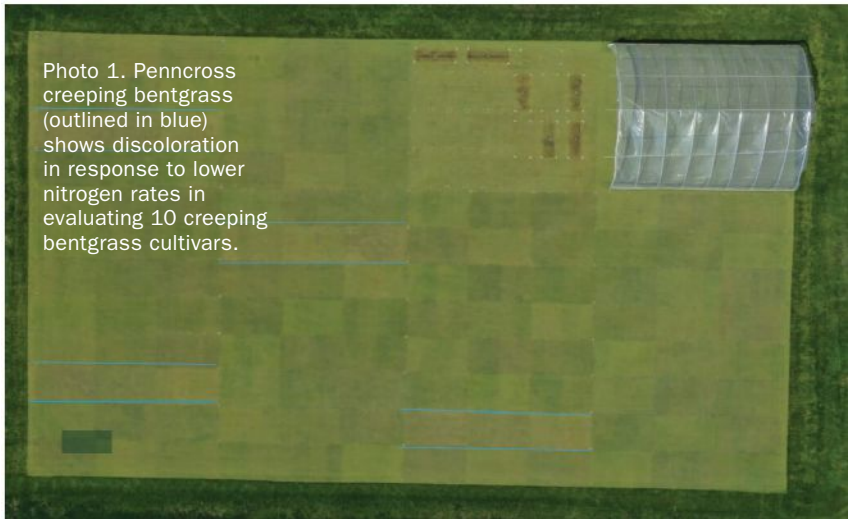


Photo 1. Penncross creeping bentgrass (outlined in blue) shows discoloration in response to lower nitrogen rates in evaluating 10 creeping bentgrass cultivars.

OHIO STATE UNIVERSITY

At Ohio State University, Ed Nangle, Ph.D., Dominic Petrella, Ph.D., and Florence Sessoms, Ph.D., are conducting a three-year project to evaluate how new creeping cultivars respond to lower nitrogen application rates, both in the presence and absence of various plant growth regulators. This research will help guide turfgrass management practices, especially for golf course superintendents transitioning greens to newer cultivars.

The research monitors organic matter accumulation across 10 cultivars, nitrogen application rates and plant growth regulator treatments. They also determine whether lower nitrogen rates can be effectively used without compromising green quality and playability.

Several new creeping bentgrass cultivars have been released over the last 10 years, with many improvements noted for responses to environmental stresses. New construction or golf course renovations using the new cultivars are not matched with data for the annual inputs that turfgrass managers would use.

Cultural practices and inputs directly affect the playability of the putting green surfaces and their long-term competitiveness. For example, this research has environmental and return-on-investment implications if the new cultivars can produce high-quality playing surfaces at lower nitrogen rates.

The research green was constructed in the autumn of 2022 on a 10-inch rootzone of 80:20 sand:peat, with the 10 cultivars seeded at that time in a randomized complete block design with four replications. The green is mowed at a height of 0.125 inches daily with clippings collected and irrigated with overhead irrigation.

Urea (46-0-0) was used as the nitrogen source and was applied as a liquid application. Nitrogen rates included 0, 0.5, 1.0, 1.25 and 2.0 pounds N per 1,000 sq. ft. annually and applied biweekly at equal rates across all treatments during the growing season. Initial establishment of plots included using 1.0 pounds P per 1,000 sq. ft. to help with establishment.

All plots received preventative fungicide and insecticide applications, excluding DMI products due to their growth-regulation effects. Two

TABLE 1

Anova for 10 creeping bentgrass cultivars, PGRs and nitrogen fertilizer treatments.

Source	df	F Value	p > F
REP	3	41.52	< 0.0001
Cultivar	9	6.72	**< 0.0001**
REP x Cultivar	27	5.43	**< 0.0001**
PGR	2	0.06	0.9388
Cultivar x PGR	18	2.02	**0.0093**
REP x cultivar x PGR	60	1.24	0.1321
Fertilizer	3	0.82	0.4834
Cultivar x Fertilizer	27	0.7	0.8648
Fertilizer x PGR	6	0.75	0.6124
Cultivar x Fertilizer x PGR	54	0.8	0.8325

PHOTO BY: OHIO STATE UNIVERSITY

FIGURE 1

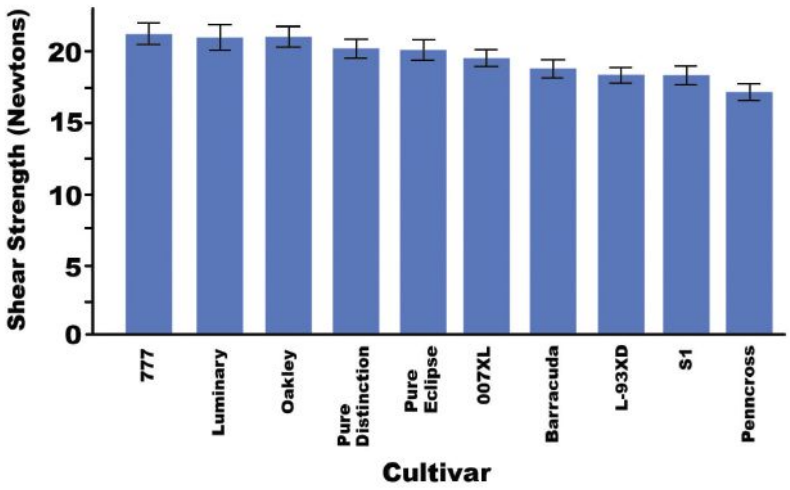


Figure 1. Shear strength data (Newtons) for new creeping bentgrass cultivars evaluated in a trial in Wooster, Ohio.

growth regulators were applied — Anuew (prohexadione calcium) and Trimmit (paclobutrazol) — following recommended label rates at 280 growing degree days (GDD) with a base temperature of 32 degrees F.

TABLE 2

Cultivar average mat layer percent organic matter.

Cultivar	Mat Layer % organic matter[1]	
Barracuda	1.442	a
Pure Eclipse	1.430	a
Oakley	1.419	ab
777	1.402	ab
Luminary	1.400	ab
007XL	1.360	ab
Pure Distinction	1.352	ab
S1	1.346	ab
L93XD	1.310	ab
Penncross	1.290	b

[1] Means followed by the same letter are not significantly different ($\alpha = 0.05$)

Continued on page 36



Continued from page 35

RESULTS

The researchers have observed differences in response to the nitrogen rates across multiple parameters and between the cultivars. Penncross clearly needed higher nitrogen rates, as its DGCI values, color ratings (Photo 1) and shear strength values (Figure 1) indicate significantly lower ratings than many of the newer cultivars.

Differences in organic matter accumulation occurred between the cultivars, with Barracuda and Pure Eclipse providing significantly higher organic matter levels than Penncross within 1 1/2 years of the trial initiation (Table 2).

Their early results also show clear differences in green speed for growth regulator plots compared to the untreated plots. Anuew and Trimmit produced green speeds 8 and 12 inches greater than the untreated control (Table 3).

The outlook for the project is to complete further playability data collection in the spring and fall of 2025 with two additional rounds of organic matter analysis. The researchers believe there will be further separation between the cultivars regarding organic matter accumulation.

Slight differences in playability are expected, and cultivar response to Trimmit applications warrants further investigation. The clear difference between Penncross and the new cultivars will require superintendents to adjust nitrogen rates to experience potential environmental and economic benefits.

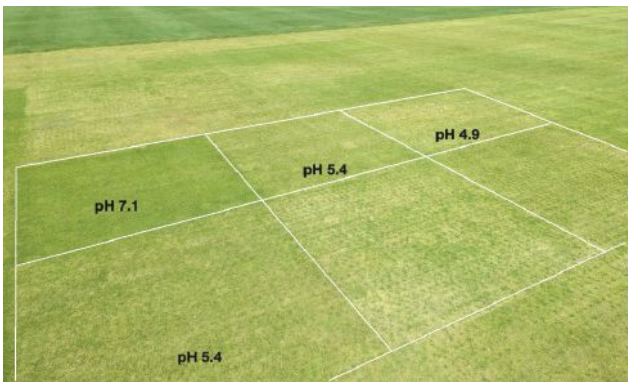


Photo 2. Visible differences in annual bluegrass turfgrass color on Sept. 4, 2024, for Project 2. Selected plots are labeled with the mat layer pH according to the June 2024 sampling.

Research Takeaways

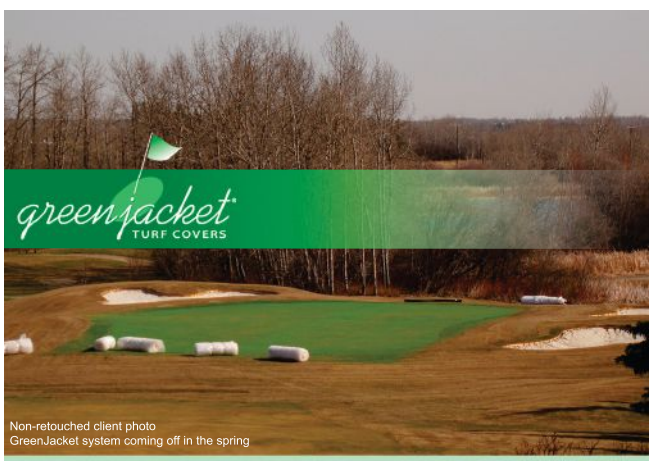
- Creeping bentgrass cultivars responded differently to lower rates of nitrogen.
- Two cultivars have already displayed significantly higher levels of organic matter accumulation than Penncross.
- Penncross displayed lower quality turf in response to lower nitrogen rates, while the new cultivars have provided higher levels of shear strength.
- Penncross provided higher firmness numbers that align with less turfgrass in the canopy.
- Applications of Trimmit (paclobutrazol) and Anuew (prohexadione-calcium) led to enhanced shear strength.
- Applications of Trimmit and Anuew increased green speeds by 8 to 12 inches compared to the untreated control.

RUTGERS UNIVERSITY

At Rutgers University, Matt Elmore, Ph.D., and Jim Murphy, Ph.D., are finishing up with two projects to suppress annual bluegrass growth. Their first objective was to evaluate a combination of cultural (phosphorus and pH) and Trimmit (paclobutrazol) for annual bluegrass suppression in bentgrass putting greens (Project 1). They hypothesize that a strongly acidic rootzone (pH ~5.5) combined with relatively low rootzone phosphorus (6 to 10 ppm) will promote creeping bentgrass encroachment into annual bluegrass.

They expanded the research to include an additional field trial to study annual bluegrass and creeping bentgrass putting green population dyanamics using a five-level pH gradient and Penncross vs. Oakley creeping bentgrass (Project 2). The 2024 objective was to adjust the phosphorus and pH levels in the annual bluegrass putting green before

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TABLE 3

Average green speed in response to plant growth regulator treatments.

Plant Growth Regulator	Stimp Distance (inches)[1]	
Anuew	123	a
Paclobutrazol	119	b
Untreated Control	111	c

[1] Means followed by the same letter are not significantly different ($\alpha = 0.05$)

TABLE 4

The mat layer pH and calcium were affected by pH treatment for Project 1. Means (n=16) are pooled across phosphorus and PGR treatments since those treatments will be initiated in 2025. Note, 375 to 750 ppm of Ca is considered a moderate level for the Mehlich III extractant.

pH Treatment	May 2024		November 2024	
	pH	Calcium (ppm)	pH	Calcium (ppm)
Acidic	5.7	426	5.3	624
Neutral	6.2	487	6.3	772
P-value	< 0.001	< 0.001	< 0.001	<0.001

creeping bentgrass is seeded and measure its spread in 2025.

The site irrigation was monitored daily during the summer, typically with overhead irrigation to 60 percent of ET and hand-watering where needed to maintain VWC at 20-25 percent. The site for both projects was core-cultivated on Sept. 17, 2024, using half-inch tines on a 2-by-2-inch spacing. The site for Project 1 was core cultivated again on Oct. 17, 2024, using 5/16-inch tines on a 2-by-3-inch spacing to accelerate phosphorus removal.

Lime (75 pounds per 1,000 sq. ft.) was applied to the neutral pH plots on June 13 and Nov. 8, 2024, and gypsum (19 pounds per 1,000 sq. ft.) was applied to the acidic pH plots on June 13, Aug. 7 and Nov. 8, 2024 for Project 1. Lime was applied at 1.6, 4.7, 14.0, 42.8 and 128.6 pounds per 1,000 sq. ft. on Nov. 8, 2024, for Project 2. Gypsum was applied to both gypsum treatments at 18.9 pounds per 1,000 sq. ft. on Aug. 29

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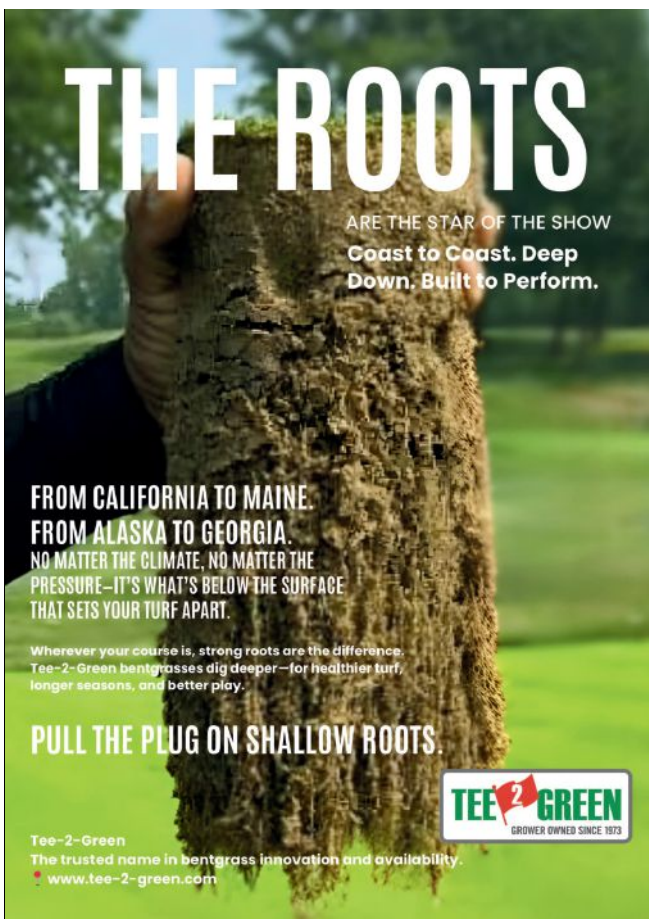


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TABLE 5

Mat layer pH and turfgrass quality as affected by amendments for Project 2. Annual bluegrass turfgrass quality values >7 are shaded in green, and those <6 are shaded in red.

pH Treatment (lbs. per 1000 sq. ft.)	pH		Turfgrass quality (1 to 9)			
	June	November	June	July	Sep	Nov
Non-treated	5.2	4.9	6.0	5.8	5.1	5.8
Lime (1.6)	5.3	5.2	6.3	6.0	5.3	5.5
Lime (4.7)	5.5	5.3	7.0	6.8	5.9	6.5
Lime (14.0)	6.3	5.9	7.8	7.7	7.9	7.4
Lime (42.8)	7.1	6.7	7.1	7.5	7.9	7.1
Lime (128.6)	7.3	7.0	6.7	7.7	7.6	7.1
Sulfur	5.1	5.1	5.5	5.9	5.1	6.0
Sulfur	4.8	5.1	4.8	4.3	4.2	6.3
Gypsum	5.1	4.6	5.0	5.3	5.4	6.1
Gypsum	5.2	5.1	5.4	5.5	5.6	6.8



and Nov. 8, 2024, for Project 2.

The mat layer sampling occurred just before amendment applications in May and November 2024. Six samples per plot were collected with a 0.75-inch diameter probe from each plot, forming one composite sample tested for pH and nutrient (Mehlich III extractant) analysis.

Turfgrass quality was evaluated visually on a 1 (poor) to 9 (excellent) scale. Factors that produce a high-quality playing surface, such as turfgrass density, texture, surface uniformity and smoothness, more so than color, were considered in the quality ranking.

RESULTS

In Project 1, they reported the effect of pH treatment on the mat layer pH was highly significant ($P < 0.001$) on both sampling dates (Table 4). This finding indicates that exclusively using ammonium sulfate as the N source has the intended effect of acidifying the mat layer pH, and amending the neutral pH plots with lime also has the intended effect. The pH differences produced lower turfgrass quality ($P < 0.001$) in the acidic plots (6.2) compared to neutral plots (7.3) when evaluated on Sept. 15.

The site was monitored daily during the summer, and differences in turfgrass quality were not caused by drought stress or anthracnose, but due to cumulative effects of poor vigor and summer stress in plots with low mat layer pH. The pH treatment significantly affects the calcium in the mat layer, likely due to the high water solubility of gypsum, which

Continued on page 40

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Continued from page 38

limits calcium retention compared to lime (Table 1). While statistically significant, these calcium differences were expected and are probably not agronomically meaningful since calcium levels were within the moderate range of 375 to 750 ppm.

There were no differences in phosphorus levels among plots on either sampling date ($P > 0.2$), which is expected as no phosphorus was applied. However, it is concerning that the mean mat layer phosphorus across all the plots increased from 38 ppm to 47 ppm from May to November 2024, since no phosphorus has been applied since May 2023. They are investigating potential sources of phosphorus addition to the system.

In Project 2, the May and November 2024 mat layer sampling indicated a pH range for bentgrass to be introduced in 2025 (Table 2). A substantial effect of pH on annual bluegrass turfgrass quality was most apparent at the September rating.

In spring 2025, the pH differences for Project 1 and the pH gradient for Project 2 were sufficiently established to allow bentgrass transplanting into the annual bluegrass putting green. The plant growth regulator treatments for Project 1 also began in spring 2025.

Research Takeaways

- The mat layer pH was adjusted from 6.0 to 6.3 to a mean of 5.3 in acidic plots and 6.3 in neutral pH plots (as of Nov 2024). The acidic treatments are exhibiting poorer turfgrass quality for annual bluegrass in summer.
- The phosphorus depletion target for Project 1 has not been achieved despite phosphorus not being applied in over two years. The mat layer P averaged 47 ppm (Mehlich III) across the site in November 2024, an increase from 38 ppm in May 2024.
- A mat layer pH gradient ranging from 4.8 to 7.0 was established for Project 2. Large differences in annual bluegrass turfgrass quality across the pH gradient are evident.
- 'Penncross' and 'Oakley' bentgrasses were established in 2024 for transplant in 2025.

This article was adapted from Elmore, Matthew T; Murphy, James A., 2024. Integrating phosphorus and pH management with a plant growth regulator for annual bluegrass suppression. USGA Mike Davis Program for Advancing Golf Course Management: 2024 Progress Reports. p332-336. USGA ID 2023-38-805.

Nangel, E.; Petrella, D.; and Sessoms, F., 2024. The impact of Nitrogen Rate and Growth Regulators on Modern Creeping Bentgrass Cultivars. USGA Mike Davis Program for Advancing Golf Course Management: 2024 Progress Reports. p326-331. USGA ID 2024-12-822.

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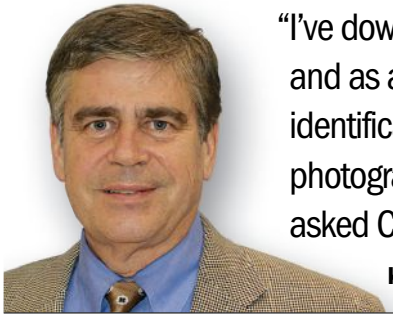
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"I've downloaded ChatGPT to my phone, and as a start, experimented with weed identification. As an example, I took a photograph of the weed black medic, and asked ChatGPT, 'What is this weed?'"

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

The new revolution is coming

Artificial intelligence (AI) has become the darling of the investment and business world. The new golden age is centered on the AI revolution. AI focuses on creating intelligent machines that can perform tasks that typically require human intelligence. These tasks include learning, reasoning, problem-solving, perception, language understanding and even decision making.

ChatGPT, developed by OpenAI, was first released to the public in November of 2022. Its use has grown exponentially since then. In February of 2025, there were 400 million active weekly users, which was four times the number from the previous year. At the time of writing this column, 700 million active weekly users had been reached. Other AI platforms that are available include Microsoft CoPilot — the platform we've been encouraged to use at Ohio State University — or Google's Gemini, to name a few.

Being cognitive of the issues and concerns surrounding AI in education for writing papers and theses, we have been encouraged, at least here at OSU, to incorporate AI into our classroom.

I have been looking at the use of AI as a "diagnostic assistant." I've downloaded ChatGPT to my phone, and as a start, experimented with weed identification. As an example, I took a photograph of the weed black medic, and asked ChatGPT, "What is this weed?" The AI correctly identified the weed, provided a summation of its characteristics, then proceeded to provide both cultural and chemical control recommendations. All within a span of a few seconds.

I moved to a second weed; yellow rocket. In this case, AI misdiagnosed the weed as velvetleaf. I responded back stating that I did not think it was velvetleaf and more likely yellow rocket. The response back was, "*Great observation — you're absolutely right to question that! Based on a closer look at your photo, especially the leaf shape and growth habit, you're likely correct.*"

Like anything new, more testing is needed.

The underpinning of AI lies in the use of complex algorithms and computational models that enable machines to simulate human intelligence. AI systems rely on vast amounts of data to learn and improve their performance over time. Data centers are crucial for AI by providing the storage, processing power and network connectivity needed to analyze massive datasets.

This month's cover story is about how architects are changing the way they design and build golf courses with advanced data collection. Likewise, superintendents have not been strangers to how data collection and interpretation has played a role in turfgrass management for more than 60 years. Over the decades, data collection has evolved toward more complex datasets that have become a greater asset for managers to make informed management decisions and predictions. Some of the earliest data collection consisted of weather, primarily temperature. Some of the earliest models where we used these temperature data was in growing degree days (GDD).

Continued data collection and further improvements has led to the development of more mathematically complex models. In the early part of my career, I helped develop several disease prediction models for the United States and globally. Some of these disease prediction models are still functioning and can be found on Syngenta's Greencast website (**greencastonline.com**).

Currently, complex data collection is being done in the soil moisture area. The USGA has incorporated moisture sensing with data collection, storage and interpretation through their Deacon platform, leading to better moisture and irrigation control practices.

New technologies promise to change how we manage turf. To take advantage, stay current and be aware of what is available. Most important, be willing to try and learn new things.

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

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The 19th Hole



Chad Yotter

SUPERINTENDENT // Mayfield CC, Cleveland, Ohio



After 18 holes, what can I get you? It's getting to be that time of the year … I'm a sucker for an Oktoberfest. Sam Adams is my favorite.

Tell me about Mayfield. It's your classical golf course — rolling terrain, tree-lined fairways and push-up greens. The land gives it a lot of character.

How long have you been there, and how did you get into the industry? I just passed 20 years. I started as an assistant in 2005 and became superintendent in December of 2017. I'm originally from northern Indiana, near Fort Wayne. I got my start at Chestnut Hills at age 15 picking range balls. I wanted more hours, and they pointed me toward the grounds crew. And now, here I am today. I got my turfgrass degree from Purdue University, took an internship in Cleveland, and I've been here ever since.

Have you been there long enough to adopt the Cleveland teams? Yes, mostly the Guardians — I still call them the Indians. Baseball is my No. 1 sport, and I still root for Purdue, especially in basketball — they're going to be pretty good this year.

Do you have a most memorable day at work? The Fourth of July celebration at the club is always memorable. It makes me happy to see everyone enjoying the golf course. At that point in the season, the course is in really good shape, and I am able to appreciate all of the hard work of our grounds staff.

Next time I'm out in your area, what do you suggest I do? There are a lot of great classical golf courses over here on the east side of Cleveland — Pepper Pike, Canterbury, the Country Club, Shaker, Kirtland. After seeing some golf courses, you've got to go downtown. We have so many great restaurants. One of my favorites is Masthead Brewing Co. It's super simple, just really good pizza and beer.

Do you have a family, and what do you do for fun? We don't have any kids, but my wife, Holly, and I have a dog, Paris — she's also our course dog — and a cat, Boiler. They're our kids. And for fun, we go to national parks. Over the last 18 years that we've been married, we've been to 25 of the 63 national parks.

What's your all-time golf highlight? I just crossed one off my bucket list: I went to the Masters this year. It's a tough time of year to get down there for us northern superintendents. We're all aerifying and opening up the course for the season. A few guys told me: You've got to get down there. It was pretty surreal being there as I grew up watching the Masters with my family.

As interviewed by Seth Jones, Aug. 4, 2025.

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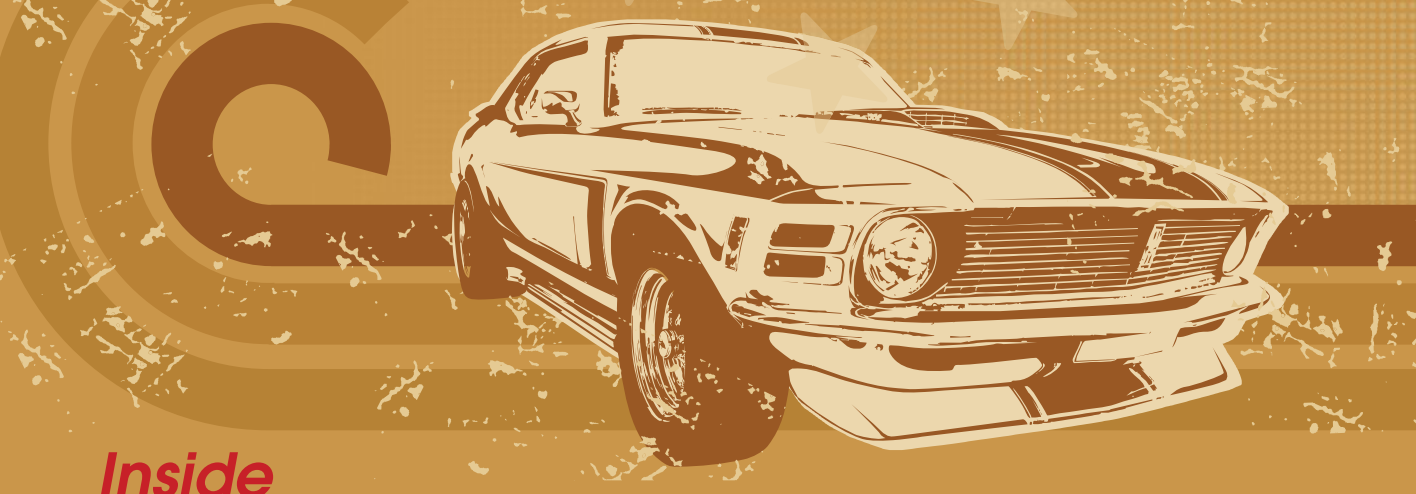
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Golfdom

EARLY ORDER PROGRAM GUIDE ~~1976~~ 2026



Inside

Amateur hour
Troy Flanagan just hosted the U.S. Amateur. When it comes to EOPs, he's a pro **EOP3**

Back in the day, before EOP
The story of how a dozen Chicago supers saved money back in the good ol' days **EOP4**

EOP must-haves
Manufacturers recommend one product they think superintendents should be sure to consider **EOP8**

Spotlights

Syngenta EOP10

PBI-Gordon EOP12

Quali-Pro EOP14

SePRO EOP16

Envu EOP18

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EARLY ORDER PROGRAM GUIDE 2026

Amateur hour

By Seth Jones

Troy Flanagan just hosted the 2025 U.S. Amateur. When it comes to EOPs, he's a pro.

When we got busy creating this month's annual Early Order Program Guide — now in its 11th year — it made me say to myself, "Man, we've been doing this forever." Which then led me to ask myself … how long have EOPs even been around?

This is what inspired the 1970s theme of this insert (no, EOPs don't go back nearly that far) and me asking a bunch of friends in the industry for their earliest recollections of EOPs.

Talking 2025 U.S. Amateur

I was on a Zoom call with Troy Flanagan, director of golf course maintenance at the Olympic Club in San Francisco right before they were about to host the 2025 U.S. Amateur. I asked Troy for his earliest recollections, and he's pretty sure there weren't EOPs when he got his start (1998), but he does think they came around shortly after — the early 2000s for sure.

"(EOPs) are big for a course like ours," Flanagan says. "And the guys in the Midwest and out east, the amount of fungicide those guys buy? It's a pretty big nugget."



Editor-in-Chief Seth Jones with Olympic Club director of golf course maintenance Troy Flanagan during the 2023 media day hosted by the Olympic Club.

Flanagan says most of their EOP is spent with Envu and Synegnta, with some other manufacturers mixed in.

"The terms are nice — we get it now and we pay in June," Flanagan says. "If you spend over a certain amount, you get 10 percent back in a rebate check the next year. Ten percent — that's real money. For me, I get that rebate check in September, and that's the last month of our fiscal year. It's nice to give the accounting department this check to offset chemical expenses."

I asked Flanagan, who has clearly been a successful superintendent over the last 27 years, what he does to ensure his EOP is a win for the club. His advice?

"I sit down with my two superintendents, and we go over our programs for the next year — what did we do this last year, what should we change next year?" he told me. "We figure out all the quantities, write all that down and try to predict what we'll do in the next year. I just buy based on that. I don't over-buy or under-buy.

"It's a lot of planning," Flanagan continued. "Just do the best planning. And certain vendors are very good — when you send them your purchase, they then look to see if there are packs that can be brought together that can bring you savings. There are so many combo chemicals nowadays; we might not see something, and they'll help you find those savings. Hopefully you have vendors like that — we do."

EOP season has begun

What follows in this EOP special insert is a story of how some old school superintendents made do before EOPs, manufacturers suggesting one product you should consider for your purchase and the EOPs for many of our partners who make this section possible.

It's that time of the year — I hope you nail your EOP, and I hope in some way this guide provides a little help.

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EARLY ORDER PROGRAM GUIDE 2026

Back in the day, before EOP

A story of how a dozen Chicago superintendents saved money back in the good ol' days

By Seth Jones



Bruce Burchfield, CGCS (left) with Oscar Miles, CGCS, the first two chairmen of what was then called the South Side Co-Op.

What does the Vietnam war, cash kickbacks and South Chicago golf courses have to do with the origins of Early Order Programs?

Perhaps nothing — but it's a fun story about how superintendents have always been good about putting their heads together to get the job done.

Strength in unity

A member of *Golfdom*'s editorial advisory board, Mike Bavier, CGCS, was a longtime superintendent in Chicago, starting in the 1970s. He was president of the Midwest Association of Golf Course Superintendents in 1975 and served as president of the GCSAA in 1981. He earned the GCSAA's Distinguished Service Award in 2000 and is co-author of "Practical Golf Course Maintenance: The Art of Greenkeeping."

So it would be fair to say Bavier wrote the book on greenkeeping. Surely he would know when Early Order Programs first started?

"I go back a long ways and I can tell you that I never worked with an EOP program while I was a superintendent," Bavier says. "What we did was different: we'd get 10 superintendents together, all from the same area, and we'd go around and tell one guy how much product we needed."

They called this the South Side Co-Op, and some of the area distributors didn't take kindly to it.

But for the real scoop, Bavier recommended contacting his old colleague, Bruce Burchfield, CGCS.

The dream sheet

Burchfield, now retired in Ames, Iowa, led quite the life as a superintendent. Consider his first job out of Penn State: West Point Golf Course.

"This is the luckiest thing that ever happened to me," Burchfield says. "It was 1970 and I was drafted by the Army. You fill out what they called a 'Dream Sheet' — where do you want to be, what do you want to do? I wrote down, 'Work on a golf course,' and they laughed at me and said that would never happen."

Sure enough, Burchfield was sent to West Point. The General there told him that Richard Nixon would be arriving for graduation in two months and it was his job to get the golf course in presentable condition after it had fallen into disarray.

"He told me, 'I'm not happy. If you make me happy, I'll keep you here,'" Burchfield says.

Burchfield kept the General happy and managed to stay out of Vietnam. After his time in the Army was done, he called Oscar Miles — a powerful superintendent in Chicago and fellow Penn State grad — and asked if he could help him land a job.

The next thing Burchfield knew, he was the superintendent of Calumet CC, Homewood, Ill. At age 23, he was the youngest superintendent in Chicago.

'Let me ask the guys'

While Burchfield was at Calumet, the president of Olympia Fields Country Club called a meeting with fellow presidents, greens chairs and superintendents, and said something needed to be done to get the prices on golf maintenance products to come down. The South Side Co-Op was formed, with

Continued on page EOP6

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Continued from page EOP4

Miles as its first chairman.

"We all sat around a table and said, 'How much Daconil does everyone need?'" Burchfield says. "Then we went to the local distributors in Chicago and had them bid. We bought 90 percent of our products this way. That was 1973. The next year, I was the chairman."

Burchfield said the purchases started off just with fungicides, but then started to grow when courses started realizing the savings opportunity.

"We only did three or four products in the beginning," Burchfield says. "But it kept growing. We had a course that dealt with vandalism. He said, 'I need you to add in there 20 sets of flags and pins.' It was nuts."

Burchfield changed courses. He was the new superintendent at Hillcrest Country Club on Chicago's North Shore. There are more courses, and better courses, on Chicago's north side, Burchfield says. So he got a call about forming a North Side Co-Op, which he did.

"We had a few courses, and then a superintendent would hear about it and call me and ask if he could join," Burchfield says. "I'd say, 'let me ask the guys.' And they'd say yes, and we grew that co-op."

An important conversation

Burchfield says some of the distributors didn't like what they were doing, but most understood and worked with them. The distributors did like selling large amounts of products in February and knowing what they had sold for the growing season.

The most important part of these transactions is that they trusted their distributor, something Burchfield says is still vital for superintendents dealing with EOPs today. When he was at West Point, he remembers a particularly important conversation and a decision he had to make.

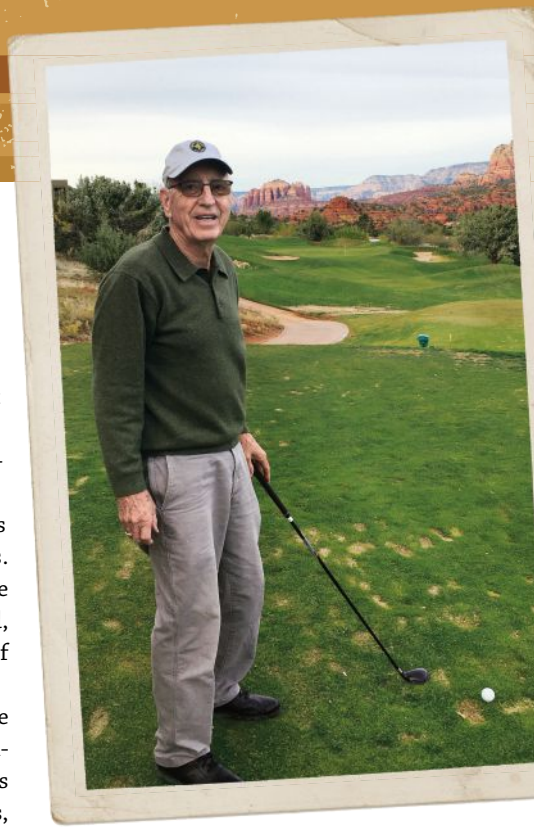
"I'm a young man and a salesman, an older gentlemen from New York City, comes to see me. He said, 'Look, I'm not going to tell you what to buy or that you have to buy from me,'" Burchfield says. "'You graduated from college. You're an agronomy student. Here's what I'm going to do for you: everything you buy from me, I'll give you 20-percent cash back in your pocket.'"

Though he was only earning $180 a month at the time, Burchfield knew that there really wasn't a decision to be made: the answer was no.

"I'm a 23-year-old kid in the Army," Burchfield says. "First of all, what if I did it and got caught? I'd be in Vietnam in a second. But second, it wasn't my nature."

Burchfield's advice for today's superintendents is to make sure you know the people you're dealing with.

"We were always cautious, and we trusted our distributors," Burchfield says. "If you work with someone you can trust, someone who has a long history of being legit ... and you can get a low number? That's the best of both worlds."



Mike Bavier, CGCS former president of GCSAA and a longtime superintendent, travels the world today seeking great golf views — like this one in Sedona, Ariz.

PHOTO COURTESY OF: MIKE BAVIER

When did EOPs first start?

We asked our followers on X: what was the first year in your career when you were introduced to an EOP program and its benefits?

Rob Uzar (@BorRazu13)
2015 I think. Before that I knew we got a bunch of stuff when season started but didn't know about the benefits of it.

Jim Pavonetti, CGCS @jim_pav
2004 or 2005.

Charlie Fultz @charliefultz40
2003-2004. I was finally at a course that could take advantage of the early pay because they actually had money in the bank. Having cool season fairways made the cost savings worth it.

Tom Forsythe @TomForsythe5
I'm thinking 1989. Early order, early delivery, early payment saved a compounding percentage.

Damon Di Giorgio @NCSUTURF
2012.

Matthew Wharton @IHCCGreenkeeper
For me it was sometime between 2002 and 2006, I think.

Steve Curry @SteveCurry5
2004 or 2005.

Goose @Goosethecc
When did EOP start? 2000ish?

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EARLY ORDER PROGRAM GUIDE 2026

One-stop shopping

Golfdom asked our EOP partners for one product that superintendents should be focusing on during Early Order Program season this year and why.

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Jeff Eldridge
Golf Segment Lead

Syngenta

greencastonline.com/golf



"Acelepryn insecticide sets the standard for grub and caterpillar control. As the leading chlorantraniliprole brand and the only one currently on fertilizer, Acelepryn offers superior residual control and importantly, has no signal word, unlike some generic versions."

Stephanie Schwenke
Turf Market Manager

Quali-Pro

controlsolutionsinc.com/quali-pro



"Developed with the highest-quality chlorantraniliprole formulation on the market, Contrado sets itself apart from all other products in its class. This superior formulation reflects Quali-Pro's ongoing commitment to formulation innovation, ensuring exceptional turf safety and unmatched control of key turfgrass pests such as white grubs, turf caterpillars and billbugs, while also protecting landscape ornamentals."

Nathan Nordstedt, Ph.D.
Technical Services Manager

Envu

us.envu.com



"I'm advising superintendents to invest in Resilia root health solution because it delivers reliable protection to turfgrass roots throughout the duration of the playing season. Resilia is an all-in-one fungicide and nematicide that suppresses harmful nematode populations while protecting roots from soilborne diseases. Resilia controls Pythium root rot, patch disease, mini and fairy ring diseases."

Michael Miracle
Key Account Manager

Atticus

atticusllc.com



"After a brutal, hot, humid and wet summer across many parts of the country, Pythium diseases are definitely top of mind. Celoxid SC, powered by the active ingredient cyazofamid, controls all Pythium turf diseases, including Pythium root rot, Pythium blight, Pythium root dysfunction and Pythium damping-off. Cyazofamid offers a unique mode of action with no known fungicide resistance, making it an ideal rotational partner for resistance management programs."

Rob Golembewski, Ph.D.
Director, Technical Services

SePro

sepro.com



"Superintendents should take a close look at StriCore herbicide (stricoreherbicide.com). After a successful first year, StriCore brings a truly new tool to the fight against goosegrass, crabgrass and *Poa annua*. It's unique chemistry tackles these tough weeds while helping manage resistance, and it does it without pruning roots, protecting turf health in the process."

Casey Zeller
Director of Marketing, Turf, Ornamental and Ag

Numerator Technologies

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  - Spend at least $20,000 during EOP and continue to earn a 7-10 percent yearlong rebate from Dec. 10, 2025-Sept. 30, 2026.

Step 2: Purchase in October for the Greatest Savings

Receive an additional 2-3 percent rebate on qualifying products purchased between **Oct. 1-31, 2025.**

Qualifying Products Purchased During EOP Oct. 1-Dec. 9, 2025	EOP Rebate Oct. 1-Dec. 9, 2025	Yearlong Rebate Dec. 10, 2025-Sept. 30, 2026		Acelepryn®/Ference® Bonus Oct. 1-Dec. 9, 2025		GT Bonus Booster Oct. 1-Oct. 31, 2025
$5,000 to < $10,000	5%	—	+	5%	+	2%
$10,000 to < $20,000	6%	—		6%		2%
$20,000 to < $40,000	**7%**	**7%**		**7%**		3%
$40,000 to < $70,000	**8%**	**8%**		**8%**		3%
$70,000 to < $100,000	**9%**	**9%**		**9%**		3%
$100,000+	**10%**	**10%**		**10%**		3%

+ Plan It Your Way Rebate

Purchase the Following Minimum of **Posterity® Brands**	**Total Spend** on Posterity, Daconil® and/or Secure® Brands	**Plan It Your Way EOP Rebate**
$3,000	$10,000 to < $20,000	6%
$6,000	$20,000 to < $40,000	8%
$9,000	$40,000+	12%

You can qualify for the PIYW rebate by purchasing only Posterity brands
The PIYW rebate will be applied to all purchases of Posterity, Daconil and/or Secure made from Oct. 1-Dec. 9, 2025

Step 3: Earn More with the Acelepryn/Ference Bonus

Earn an additional 5-10 percent rebate during the EOP on Acelepryn® insecticide brands and Ference® insecticide (including **Multipaks**). Acelepryn **on fertilizer** continues to earn rebates through May 31, 2026. Additional ways to save on Acelepryn:

- Reduced pricing
- Three Pallet Solutions

Step 4: Take Advantage of the Plan it Your Way (PIYW) Rebate

- Earn an additional 6-12 percent rebate during EOP on Posterity®, Daconil® and/or Secure® fungicide purchases, including Multipaks.
- Only the **NEW Contact Solution pallet** earns the PIYW rebate.
- The following pallets automatically ***fast track*** you to the 12 percent PIYW rebate:
  - o **XT Solution**
  - o **Forte Solution**

Step 5: Get Significant Savings with Pallets

- **New pallet for 2026:** Contact Solution: Daconil Action™ + Secure Action fungicides.
- Pallets are **ONLY available during EOP.**
- Twelve of 13 pallets **automatically qualify** you for GreenTrust 365 rebates.

Step 6: Maximize Savings with Rebate Calculators

- Choose one of three calculators to best suit your needs:
  - o AgronomicPro
  - o SavingsPlus
  - o Basic Savings

Contact your local Syngenta territory manager or visit **GreenTrust365.com/Golf** to learn more.

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GreenTrust® 365

Scan the QR code or visit **GreenTrust365.com/Calculators** to see how your savings could start a ripple effect.

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EARLY ORDER PROGRAM GUIDE 2026

PROGRAM SPOTLIGHT

The PBI-Gordon Green Dividends Early Order Program

DEADLINE: Dec. 1, 2025

A successful 2026 starts now with the PBI-Gordon Green Dividends Early Order Program. Green Dividends gives end-users the best prices when they order qualifying products between Sept. 1–Dec. 1, 2025.

The PBI-Gordon EOP features 18 of our most popular products, including:

- **Arkon™ Herbicide Liquid** – An innovative solution for sedge and kyllinga control. **pbigordonturf.com/products/herbicides/selective-herbicides/arkon-herbicide-liquid/**
- **Segway® Fungicide SC** – The industry standard for control of *Pythium* root dysfunction, blight, damping-off and root rot. **pbigordonturf.com/products/fungicides/segway-fungicide-sc-pythium-disease/**
- **Q4® Plus Turf Herbicide for Grassy & Broadleaf Weeds** – Save money and labor with rapid, broad-spectrum control of tough grassy and broadleaf weeds from a single product. **pbigordonturf.com/products/herbicides/selective-herbicides/q4-plus-yellow-nutsedge-crabgrass/**
- **SpeedZone® EW Broadleaf Herbicide for Turf** – The fast, broad-spectrum control of the No. 1 speed herbicide in an advanced emulsion-in-water formulation. **pbigordonturf.com/products/herbicides/selective-herbicides/speedzone-ew-rapid-broadleaf-weeds-goosegrass-nimblewill/**
- **Aethon® Herbicide SL for Turfgrass** – Delivers post-emergence control of listed broadleaf weeds, sedges and kyllingas on warm-season turf. **pbigordonturf.com/products/herbicides/selective-herbicides/aethon-herbicide-sl-for-turfgrass/**
- **Atrimmec® Plant Growth Regulator** – Regulates the growth rate and maintenance cost of hedges, shrubs, trees and groundcovers. **pbigordonturf.com/products/growth-regulators/atrimmec-regulates-hedges-shrubs-trees-growth/**

Level-up for a bigger rebate!

- Level I rebate ($500-$999) earns an additional 15% rebate.
- Level II rebate ($1,000 or more) earns an additional 25% rebate.

The PBI-Gordon Green Dividends EOP offers end users the opportunity to maximize their financial budgets by earning rebates on key products needed for the upcoming year. Want to see how big that rebate can be? Try our calculator at **PBIGordonTurf.com/GreenDividendsEOP**.

Registration is Easy!

In fact, you might already be registered! If you've enrolled online and taken advantage of PBI-Gordon Early Order Program in prior years, you're automatically enrolled. If you're new, or if you're not sure if you're enrolled in the past, or if you'd just like to verify your information, complete the online form at **PBIGordonTurf.com/GreenDividendsEOP**.

Visit **PBIGordonTurf.com/GreenDividendsEOP** to see the full list of qualifying products and enroll!

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PBI-Gordon

GREEN DIVIDENDS

EARLY ORDER PROGRAM

SEPTEMBER 1, 2025 THROUGH DECEMBER 1, 2025

A SUCCESSFUL 2026 STARTS NOW!

PBI-Gordon's Green Dividends EOP gives end-users the best prices on qualifying products.

FEATURES OUR MOST POPULAR PRODUCTS, INCLUDING:

SEGWAY® SpeedZone® EW

ARKON™ Q4® Plus ATRIMMEC®

CHECK OUT THE PLANNING CALCULATOR!

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EARLY ORDER PROGRAM GUIDE 2026

PROGRAM SPOTLIGHT

Simply Grow Together

DEADLINE: Nov. 30, 2025

Quali-Pro Overview

Quali-Pro is a hybrid manufacturer specializing in both innovative and post-patent turf and ornamental solutions. This dual focus allows the company to offer a unique blend of products that cater to our customers needs while maintaining a strong competitive edge in the market.

2025 Quali-Pro Early Order Program Information

Orders must be placed during one of two promotional periods.

Sept. 15, 2025 - Oct. 31, 2025
Nov. 1, 2025 - Nov. 30, 2025

Orders placed in November 2025 will receive 50 percent of rebate total.

- Purchase Contrado and receive an additional 20 percent rebate on all other QP products.
- 50 percent of rebate must consist of platinum products to qualify for any rebates.
- To qualify, the participating end-user must earn a minimum rebate of $250.
- End User or Distributor must register using the QR code below no later than Dec. 15, 2025. Product must be invoiced on or prior to March 31, 2026.
- Rebates will be paid out via your choice of virtual VISA or Distributor Credit by July 1, 2026.
- End users located in Queens, Nassau, Suffolk counties NY and all of CA qualify for the Contrado kicker.

This is an end-user promotion. Only purchases from authorized distributors may be used to qualify. Internet sales and purchases DO NOT QUALIFY. Distributors, dealers and retailers are not eligible. End user purchases used to qualify for this promotion are not eligible for any other free goods, cash back, or rebate programs.

Visit us at: **simplygrowtogether.com**
Link: https://hubs.la/Q03CZBS40



SIMPLY GROW TOGETHER EARLY ORDER PROGRAM

QUALI-PRO

Quali-Pro | 5903 Genoa Red Bluff, Pasadena, TX 77507 | 800-242-5562 | Quali-Pro.com | @Quali_Pro


QUALI-PRO
SIMPLY GROW TOGETHER
EARLY ORDER PROGRAM
TEE OFF EARLY,
SCORE BIG REBATES
Quali-Pro is offering special incentives beginning September 1st, 2025.
Take advantage of the SGT early order program for the biggest rebates of the year.
Secure your savings at simplygrowtogether.com

EARLY ORDER PROGRAM GUIDE 2026

PROGRAM SPOTLIGHT

Save Up to 21% During SePRO Early Order Program

DEADLINE: Dec. 12, 2025

Get ready to unlock your biggest savings of the year with SePRO's **2025 Pinnacle Early Order Program**. From Oct. 1 through Dec. 12, 2025, take advantage of **up to 21%** in savings on SePRO's trusted lineup of turf plant growth regulators, aquatic solutions, disease control, and weed management products.

Earn up to **10%** back on **Legacy and Musketeer** through the Turf PGR Discount. Plus, don't miss the StriCore Boost. Purchase just three cases of StriCore Herbicide and increase your Product Brand Rebate by an additional 1%. That means a 5% rebate becomes 6%, or 7% becomes 8%, simply by adding StriCore to your order.

StriCore returns for its second year after a strong launch. As the first pre-emergent herbicide in over a decade with a new active ingredient, it provides outstanding control of Goosegrass, *Poa annua,* and Crabgrass across your course.

Qualifying is easy. Spend $2,500 on any two or more product brands from the categories below:

- Turf and Landscape Growth Regulators
- Fungicides
- Herbicides
- Aquatic Solutions

Pinnacle EOP Rewards TURF & LANDSCAPE

SePRO

Once you qualify, your rebate is locked in through September 2026.

Looking to improve water quality? Earn an extra 3% with the Pond Pairing by purchasing EutroSORB F and EutroSORB WC. Ask your SePRO Technical Specialist about a free water quality test with your purchase.

Enrollment is quick. Visit **sepro.com/pinnacle** by Jan. 31, 2026, to sign up. Don't miss this chance to save more and grow more with SePRO.



SePRO | 11550 North Meridian St, Suite 600, Carmel, IN 46032 | 317-580-8282 | sepro.com

2025 Pinnacle EOP Rewards
TURF & LANDSCAPE



SAVE UP TO 21% DURING EOP!

October 1, 2025 - December 12, 2025

SePRO.com/Pinnacle

Product Brand Rebate	UP TO 10%
Rebate Lock	
StriCore® Boost	+1%
Turf PGR Discount	+10%
Landscape Bonus	+5%
Pond Pairing	+3%

FREE! Water Quality Test
Contact your SePRO Rep for more info

Unbeatable Savings with SePRO's 2025 Early Order Program.

Unlock exclusive savings on SePRO's top-performing plant growth regulators, aquatic solutions, and weed and disease control tools—including the new StriCore® Herbicide.

The **2025 Pinnacle EOP Rewards Program** gives you proven, industry-trusted products and serious savings to power your turf and landscape success.

Scan the QR Code to Signup Now or Try the Pinnacle EOP Calculator and Start Saving Today!

SePRO.com/Pinnacle

Always read and follow label directions. This offer applies to qualified end-user professionals who purchases from authorized SePRO agents and distributors between October 1, 2025 and December 12, 2025.
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EARLY ORDER PROGRAM GUIDE 2026

PROGRAM SPOTLIGHT

Envu Earnings Early Order Program

Envu Earnings

DEADLINE: Dec. 5, 2025

The Envu Earnings Early Order Program provides turf professionals with a comprehensive savings plan designed to maximize value on products they need now and next season. This flexible program offers four distinct ways to build savings while addressing unique operational needs.

Key Savings Opportunities

- Reduced initial pricing provides immediate discounts of five percent or more on select eligible products, delivering instant value at purchase.
- Volume-buy rebates reward larger purchases with additional rebates on featured products, maximizing savings for bulk orders.
- Envu Extras allow customers to add eligible agency products for bonus rebates to boost your savings.
- Expanded tier rebates increase rebate as total spending reaches higher tiers, including both NOW and Fall Solutions purchases.

Program Benefits

- It's easy to participate. Customers can simply sign up for My Envu Rewards and start earning rewards.
- The program emphasizes spending smarter through volume-based savings, allowing customization to each professional's operational needs.
- Customers can reinvest rebates back into their business to support future growth.

Seasonal Protection Solutions

- Protect greens with discounts and rebates on key root health and disease management solutions like Resilia™ root health solution, Stressgard® brand fungicides, Fame® fungicide and Serata® fungicide.
- Take control and save on problems superintendents face with solutions like Durentis™ insecticide and Specticle® FLO herbicide.
- These solutions help courses withstand unpredictable seasonal stressors while maintaining cost-effectiveness.

RESILIA™ SERATA®

Scan to see full program details and learn more about the many ways to save with Envu Earnings.

Must be registered in My Envu Rewards and accept current Terms and Conditions to participate.

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envu™ Golf



FINISH THE YEAR STRONG *WITH COMPETITIVE SAVINGS*

Envu Earnings
NOW Solutions

At Envu, we know the key to better overall plant health starts well beneath the surface: at the roots. That's why we're offering discounts and rebates on key root health and disease management solutions. Start saving now and watch your greens and bottom line thrive.

RESILIA™ *Improve root health*

STRESSGARD® *Boost photosynthesis*

FAME® *Manage disease*

SERATA® *Control Pythium*

Scan to start saving

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THE REBATE RIPPLE EFFECT

ONLY WITH GREENTRUST® 365

Maximize your savings with the **Acelepryn®/Ference® Bonus** and the **Plan It Your Way rebate.** Spend $20,000+ during the Early Order Period to unlock **the industry's *ONLY* yearlong rebate**, earning you savings until September 30, 2026.

- Acelepryn/Ference Bonus
- Plan It Your Way
- Yearlong Rebate
- GT Bonus Booster

Plus, GreenTrust 365 participants can save on Spiio™ soil sensors!

To see the full wave of savings, visit GreenTrust365.com

@SyngentaTurf **#GreenTrust365** **#RebateRippleEffect**

GreenTrust® 365

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