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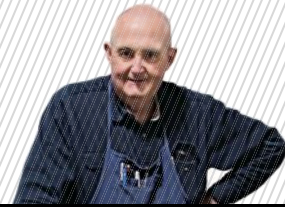


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Golfdom

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“I found myself discussing mental health with another person, face-to-face, at home plate of Fenway Park of all places.”

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

Talking mental health at home plate

I was on my way to New Hampshire to play in the NHGCSA Gold Ball Tournament. I was happy to be paying off a contest won almost a year ago by the New Hampshire chapter. All I had to do was show up, play golf in the New Hampshire mountains and buy the guys a round of drinks. How's that for a day's work?

I checked Twitter as I waited for the rest of the passengers to board the flight. That's when I saw the *Golf Digest* tweet that was blowing up turf Twitter. It was a feature story from *Golf Digest's* Ron Whitten on superintendents and their battles with depression and suicidal thoughts. *Gulp*.

I know most of the players involved in the story, both dead and alive. I even consider one a friend. Thoughts of suicide? My job is to ask questions and then quietly listen and observe ... but in my 20 years in the industry, I wasn't observant enough to think suicide was an issue I should be covering in the magazine.

My trip to New Hampshire was a breath of fresh air. I golfed with great supers (see *Golfdom* Gallery, page 10) and was able to decompress for a couple days. I also got to cross two states off my list (New Hampshire and Maine.)

After golf finished, I headed to Boston. I connected with Fenway Park Groundskeeper David Mellor earlier this year at the Sports Turf Managers show, and he invited me to visit the home of the Boston Red Sox. I took him up on his offer.

I also report on the sports turf world — we have a website, athleticturf.net, that covers that industry. So, I have a valid excuse to visit these

ballparks between traveling to amazing golf courses. I really do have the best job ... I get to enjoy all these great venues, while at the same time not having to worry about the conditions at any of these great venues.

Mellor gave me the VIP tour while he shot photos of me with my phone in the dugout and at home plate. Then he asked, “What questions can I answer about Fenway Park?” I told him I didn't want to talk about Fenway ... I wanted to talk about his new book.

Mellor has been hit by a car three different times, and as a result has had to endure 45 surgeries. His story was told on ESPN's E60 series (“Fen-


way's Keeper”) as well as in the SportsCenter story “Dave + Drago” (both can be viewed online). In June, he published his book “One Base at a Time: How I Survived PTSD and Found My Field of Dreams.”

I found myself discussing mental health with another person, face-to-face, at home plate of Fenway Park of all places.

Mellor told me he's proud to say he has gone to see a psychologist. He says counseling has made him a better father and a better husband. Despite being hit by a car three times, he calls himself one of the luckiest people in the world. “I've been hit by a car three times — I figure that's better than four,” he says. “I've had 45 surgeries. I figure that's better than 46.”

Mellor says he hopes people will learn from his book and be encouraged to celebrate life every day. He also hopes it will encourage people to not be afraid.

“Tonight, there will be 37,000 people here at the ballpark,” Mellor told me. “Every one of those people, either themselves or a loved one, is dealing with something. We want people to not be afraid to ask for help.”

I'm currently reading Mellor's book. It's well timed for October, because it reads like a horror story so far. If you are going through your own personal horror story, please take Dave's advice — ask for help. 

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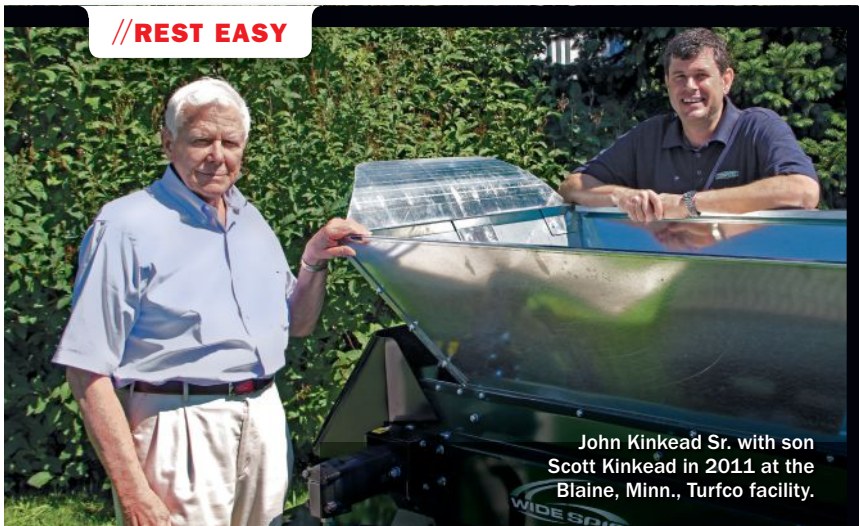
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NEWS, NOTES AND QUOTES



// REST EASY



John Kinkead Sr. with son Scott Kinkead in 2011 at the Blaine, Minn., Turfco facility.

// WHAT'S IN THE BAG?

PBI-GORDON CORP. RELEASES NEW HERBICIDE

The new Vexis Herbicide Granular from PBI-Gordon Corp. is formulated to provide targeted, postemergence control of sedges and kyllinga species, including purple and yellow nutsedge, cockscomb and false green kyllinga.

Sold in a 2-pound shaker can and in a 15-pound bag, the granular formulation helps reduce off-target drift and volatility compared to products currently available. It will be available for sale in early 2020.

For use on residential and commercial sites, sports facilities and golf course tees, fairways and roughs, Vexis is based on a new proprietary active ingredient Pyrimisulfan. Vexis Herbicide Granular can be used on a wide variety of cool- and warm-season turfgrasses — Kentucky bluegrass, fine and tall fescues, perennial ryegrass, bentgrass, bermudagrass, bahiagrass, buffalograss, kikuyugrass, seashore paspalum, St. Augustinegrass (including improved varieties) and zoysiagrass.

// NEW FACE

GOLFDOM STRENGTHENS TEAM

We're happy to announce the addition of a new face to the pages of this magazine. Christina Herrick joins us as the editor of *Golfdom* magazine.

"After a lengthy search, I believe we've found a journalist who will make an immediate impact on *Golfdom*," said Seth Jones, editor-in-chief.



Christina Herrick

"Christina was doing exceptional reporting for her previous magazine. I'm looking forward to seeing what stories she'll bring to our publication now that she has an exciting new industry to cover."

Known for her immersive approach to travel from coast to coast in her previous stint as senior editor of *American Fruit Grower* magazine, Herrick uses social media (Twitter/Instagram @EditorHerrick) to share her experiences on the road with her audience. Herrick has a degree in journalism from Ohio Northern University and has been in B2B publishing for seven years. She can be reached at 216-675-6009 or cherrick@northcoastmedia.net.

IN MEMORIAM: JOHN KINKEAD SR. AND DAVE BENNETT

BY SARAH WEBB // Associate Editor

➔ The golf course industry lost two members in early October: John Kinkead Sr., longtime head of Turfco Manufacturing who died on Oct. 1 at 89, and Dave Bennett, a Fellow of the American Society of Golf Course Architects (ASGCA), who died Oct. 1 at 84.

Kinkead will be remembered as an innovator and as a person whose perseverance set the tone for how Turfco continues to collaborate with its customers today. He lived to celebrate the 100-year anniversary of his family's continuous contribution to the golf industry. Kinkead was a member of the Golf Course Superintendents Association of America since 1956.

Two of Kinkead's sons, George and Scott, now jointly operate Turfco and fondly remember the early years of their father's leadership.

"His legacy is with us every day," said Scott Kinkead. "He made being a good and honorable man, a dependable friend and loving father and respected business owner look so easy."

Bennett was a park administration and horticulture graduate of Texas Tech University. His professional career included more than 100 golf course projects across 14 states, Canada, Mexico and Venezuela.

Projects include: Lost Creek Country Club, Austin, Texas; The Hills of Prestonwood, Plano, Texas; Santa Teresa, El Paso, Texas with his consultant, Lee Trevino; The Hills, Calgary, Alberta, Canada; Applewood Golf Course, Tucson, Ariz.; and his last course, The National Golf Club of Louisiana, Westlake, La. Bennett became an ASGCA member in 1976 and achieved Fellow status in 2006.



Golfdom's Editor-in-Chief Seth Jones talks to Echo USA's Joe Fahey about the company's new robotic mower and robotic range picker.

// 20 FOR 2020

Echo intros robotic mower and range picker

➔ As part of Echo USA's #20for2020 media preview event, Echo Robotics introduced the RP-1200 robotic range picker and the TM-2000 autonomous mower. Both the autonomous mower and robotic range picker are compatible with an automated ball management system for driving ranges.

The RP-1200 range picker has a tank capacity of 300 balls and can pick up to 12,500 balls a day, rain or shine. It can cover five acres at a speed of 2.2 mph. It comes with a self-charging station and can be controlled from a

smartphone app or a portal. The RP-1200 guidance system has safety features which include slowing the mower down when it senses an obstacle. It can work in tandem with the TM-2000 autonomous mower.

The new TM-2000 is the second autonomous mower from Echo. It comes with five floating heads with removable, retractable blades to mow and mulch clippings. It can cover a maximum of six acres and has a self-charging station. This mower also comes with Echo's guidance system that can be controlled remotely.

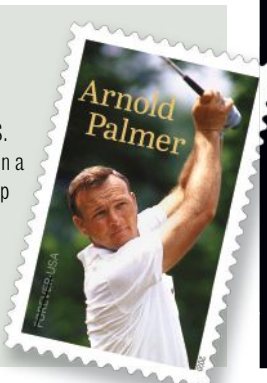
// ARNIE'S ARMY

THE KING, FOREVER

The U.S. Postal Service unveiled its 2020 slate of Forever stamps. Included in the release are stamps honoring Earth Day, the 19th Amendment, hip-hop and ... The King, Arnold Palmer.

"With drive and charisma, (Palmer) helped transform a game once seen as a pastime for the elite into a sport enjoyed by

the masses," the U.S. Postal Service said in a statement. The stamp features Palmer in action at the 1964 U.S. Open at Congressional.



// SUPPORTING THE FUTURE

PALM BEACH CHAPTER DONATES TO EIFG

Palm Beach Golf Course Superintendents Association donated \$2,500 to support the research and advocacy efforts of Environmental Institute for Golf (EIFG), the philanthropic organization of the Golf Course Superintendents Association of America (GCSAA).

An additional gift of \$2,500 was provided to support First Green. With these gifts, the chapter renews its Platinum Tee Club status for organizations that give \$5,000 or more annually to EIFG. The chapter is also recognized in the Executive Club giving level of EIFG's Cumulative Giving Program for donors who have given between \$25,000 and \$49,999 since 1987.

"The association depends on committed chapters like the Palm Beach GCSA," said Rhett Evans, GCSAA and EIFG CEO. "Their donation to the EIFG and First Green allows us to continue to support the future of the profession and the game."

// AWARDS GALORE

LEADERS RECOGNIZED AT NGCOA'S MID-ATLANTIC ANNUAL MEETING

National Golf Course Owners Association (NGCOA)'s Mid-Atlantic Chapter presented its annual awards during its annual meeting at Woodmont Country Club in Rockville, Md.

NGCOA Mid-Atlantic's new Sustainability Award, recognizing the ability to incorporate sustainability and environmental stewardship into operating practices, went to Swan Point Yacht & Country Club in Issue, Md., for its focus on environmental stewardship, while co-existing with nature and wildlife.

Mike Cumberpatch was honored as Mid-Atlantic Golf Leader. Cumberpatch, of Annapolis, Md., serves as the executive director of both the Middle Atlantic Golf Association and the Washington Metropolitan Golf Association.

Cedar Point Country Club in Suffolk, Va., was recognized as NGCOA's 2019 Private Golf Club Leader. Montgomery County Golf (MCG), in Rockville, Md., won the 2019 NGCOA Mid-Atlantic Public Golf Leader.

PHOTO BY: TYLER GUNTER; STAMP COURTESY OF U.S. POSTAL SERVICE

Golfdom Gallery



1 Great names in golf BASF's Peter Jacobsen (left) and Ryan Green, CGCS at Crystal Lake GC in Mapleville, R.I., have names meant for golf.



2 Drinks are on Jonesy *Golfdom* Editor-in-Chief Seth Jones (left) traveled to New Hampshire to thank the NHGCSA for returning the most *Golfdom* reader surveys in 2018. (Left to right from Jones) Brendan Flynn, assistant superintendent, Jason Bastille, superintendent, Wentworth by the Sea CC, Rye, N.H., and E.J. Chea, superintendent, Pease GC, Portsmouth, N.H.



3 If these greens could talk ... Bob Oppold of International Sports Turf Research Center in Lenexa, Kan., stands in front of a series of green plugs from some of the most notable courses in America.



4 Tip of the cap Bill Lewis, superintendent at Shaker Heights (Ohio) CC (left) and Kevin Stoltman, president and CEO of North Coast Media, share great taste in headwear.



5 "Live free or die" Enjoying the annual New Hampshire GCSA Gold Ball tournament are (left to right) Alex Cragie, Kingswood GC, Wolfeboro, N.H.; Bob Turcotte, Baker Hill GC, Newbury, N.H.; John Gabbett, Owl's Nest GC, Thornton, N.H.; Mike Ross, Target Specialty Products; Flynn, Bastille and Chea.

PHOTOS BY: SETH JONES (1, 3, 5); RYAN GREEN (2); JAKE GOODMAN (4)



“When I double down, my four professional f-bombs are activated: focus, follow up, finish and fun.”

CARLOS ARRAYA, CGCS, Bellerive CC, St. Louis

Standing still? Time to double down

All of us, at some point in our personal and professional lives, will experience a brain cramp. In our professional careers, given the variety and amount of work turfgrass professionals have to manage, it happens so often you'd wonder how we manage to tie our shoes correctly each morning. How many times over the course of your career have you had to ask yourself, “What day is it today?”

Fortunately for us all, things seem to get back to normal quickly as you realize the actual day on the calendar, and your mind is able to focus on the more important things for the day's operations. Unfortunately, before you even have a chance to take a breather, another day is gone, and then tomorrow arrives and the day repeats itself.

We've all been there ... it just feels like you are standing still and all the world around you is moving at light speed. It's like you are stuck in a concrete pad working hard to break free. Everyone possesses or can learn motivational tactics when they are standing still. My preferred

tactic is to “double down” and go slower. Allow me to share how my approach provides a fresh look at operations and helps improve outcomes. Full disclosure: This is my style, something that I have used that works for me when I am suffering from the feeling of standing still. When I double down, my four professional f-bombs are activated: focus, follow up, finish and fun.

Focus on the most important thing today. It could be setting up the course for the day, addressing an irrigation issue that has been a nuisance for days or dealing with the business side of your operation. The power of focus is that it centers you and pro-

vides alignment for the day, yet it doesn't put blinders on the things that also matter. I have come to learn and embrace that my attitude requires the most focus when I am standing still. Those closest to me all concur.

Follow up on items you have left unattended. Following up can be viewed as a nuisance because it is basic and takes you back to something you've deemed complete. In a fast-paced world, no one wants to go back or feel like repeating, but following up is the most important aspect in the exercise. It ensures and verifies details of your operations are in good standing. Following up also allows you

the opportunity to provide support, appreciation and peace of mind in your daily operations.

Finish tasks that have been lingering, sitting on your to-do list or piling up in your email inbox. This applies to the most basic of tasks, something as simple as emptying the course trash cans. Being an operational closer ensures that what has been completed requires neither additional attention nor a new approach for execution.

The last f-bomb is fun. No, that doesn't mean fun in the sun or that you must perform backflips down the fairway. It simply means smile while you're focusing, following up and finishing. Your smile while on the golf course can lead to someone else's stand-still moment suddenly unlocking. One could argue that the power of unlocking others, in a moment while they are standing still, places fun at the top of my f-bomb list.

Inevitably, the feeling of standing still will come over you. Don't fall in the trap where you ask yourself a boatload of self-doubting questions: Did I miss an opportunity? Did I do it right? Am I doing it right? To all you #Turfies, #Turfheads and #Turflovers, or whichever tag describes you, find a way that best suits you to double down, go slower and create a better path for your operation. **G**

Carlos Arraya, CGCS, is director of grounds and agronomy at Bellerive Country Club in St. Louis. Follow him on Twitter at @carrayacgs.

The Golfdom



FROM THE ARCHIVE

The year is 1953. The problem is finding qualified, loyal employees. Wait. That sounds all too familiar. Author L.R. Mitchell adds his voice to the many voices over the years that have suggested solutions to the labor problem, recommending that employers pay crew members a competitive wage, offer year-round employment, give employee benefits and provide training. All are pretty reasonable solutions. You'll notice a lot of masculine pronouns because one thing he doesn't suggest is marketing the job to more women. That likely can be written off as times being different, but in this day and age it's a viable option for solving the labor crisis. Check out our feature on page 16 to learn how five women found their way into the industry. To read the full version of the article below, visit golfdom.com/exclusive.

Men outrank turf as maintenance problem

BY L. R. MITCHELL

At this stage of the history of golf course maintenance, we are compelled to view our problems as those not of turf alone but of turf in its relation to men. Because we develop and maintain turf for the pleasure of golfers and must have men in this work of ours, we have to appreciate that our human problems and our turf problems must be kept in sound balance.

In balanced judgment of our work, we are compelled to recognize that the most important problem in turf maintenance today is that of attracting and holding good employees.

Why is this problem important? Because regardless how much a person in a supervisory capacity may know of golf course maintenance or how much technical knowledge of turf growing he may have, all, or at least the most of that knowledge, must be used and applied through and by the staff of employees working for and under him.

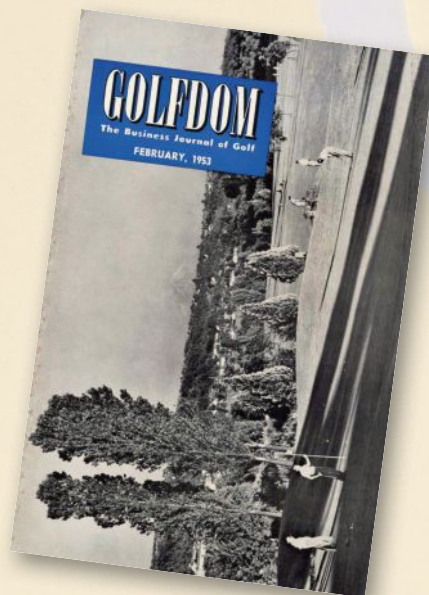
For a supervisor to most successfully apply his knowledge to course operation,

he must have well-trained, capable, interested and loyal personnel on his staff. Employees who stay only a short time, who are not interested in their job and who have no incentive to stay on the job are not that kind of personnel.

Why does the problem exist? It is difficult, and in the lower brackets almost impossible, to attract and keep good employees for two reasons. The first is salaries offered in comparison with other fields. The second is lack of employee benefits such as year-around employment, vacations, sick leave, hospitalization and pension plans.

What is the answer? First, of course, is to pay competitive wages, and by that, I mean competitive with similar lines of work in the industry or other fields. Competitive with other clubs means nothing, as they are probably facing the same problem for the same reasons.

The second is to offer year-around employment to as many employees as possible, by doing everything possible in slack season such as repairs, tree pruning, construction, etc. The third is



to offer a program of employee benefits such as vacations, sick leave, pensions, etc. that is comparable to that offered in other fields. The fourth is to train and help any employee desiring it to obtain better positions, either in your own organization or with other clubs. The net result desired being an attitude on the part of your personnel that working at the club is something worthwhile and not just another job to fill in until something better shows up.

Have we solved the problem at this club? No, not entirely. But we do recognize the problem, are working on it and with the active help of my club officials, hope to come reasonably near to solving it in the not-too-distant future. I might add that the problem exists in all phases of club operation to some degree, as well as in golf course maintenance. ☺

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“You’ll be good as long as your feet and head are warm,’ my father used to tell me. I was reluctant to take his advice as a 10-year-old, because 10-year-olds don’t feel cold.”

JOE GULOTTI, *superintendent, Newark (Del.) CC*

Fending off Jack Frost

Being cold is the worst, but even a dummy like me has learned that if you dress appropriately, you can keep that miserable fella Jack Frost in check. I’ve become obsessed with cold-weather gear, particularly since the technology to keep myself warm has evolved in a positive direction.

When I was a youngster in this business, the layering I used to protect myself from the cold was absurd. Every frigid morning began by throwing on a turtleneck, two thermal tops, a beat-down Champion hoodie I scored off the bargain rack at Marshalls, along with a jacket. I protected my bottom extremities with two pairs of cotton thermal underwear, a pair of wool socks and jeans. This layered approach to keeping warm worked, but was quite restrictive. I felt like Ralphie’s little brother Randy from *A Christmas Story*. “I can’t put my arms down!”

Thank goodness for the advances in cold-weather gear because my winters have become way less restrictive. Instead of layering up, on

cold days I sport an Under Armour compression mock turtleneck. This simple piece of clothing keeps my base toasty without being annoyingly restrictive. However, the price tag for this specific piece is quite annoying. I’ve tried cheaper brands but quickly learned that they’re less expensive for a reason. If you’re in the market for a compression shirt, I suggest sticking with Under Armour. It will set you back around 60 bucks, but it’s a worthwhile investment.

I used to be brand loyal to Under Armour but have discovered other brands that perform just as well. I currently own two pairs of compression pants, both of which I managed to find on the bargain rack. I scored a pair

of Smartwool thermals for \$30 that may work too well, and some Kuhls, which set me back a 20 spot. I prefer the Kuhls, but the Smartwools work just fine.

“You’ll be good as long as your feet and head are warm,” my father used to tell me. I was reluctant to take his advice as a 10-year-old, because 10-year-olds don’t feel cold. However, as a somewhat more intelligent adult, I’ve grown to accept my father’s sage advice. Any knit cap will work to keep your dome warm, but the technology used to produce socks is right on par with other advances in base-layer technology.

To keep my feet protected from the elements, I wear Smartwool’s Mountaineering Extra Heavy Crew Socks.

They’re made with merino wool, and whether you’re shoveling snow at the clubhouse or felling trees on the course, these socks will totally keep your feet warm and dry. A fun fact about these amazing socks: You can wear them day after day. As someone who suffers from chronic foot funk, I am astounded at how well these socks repel the stink.

Who hasn’t used the exhaust from a piece of equipment to warm up their hands? I certainly have, but perhaps my best cold-weather gear purchase in the last two years has been a pair of Burton Work Horse Leather Mittens. I was always leery of the mitten, thinking that they would interfere with the ability to use my hands. Plus, mittens look kind of corny. Despite the hacky look, my hands have never been warmer, and my willingness to sacrifice function over fashion has kept my hands free from the toxic fumes of a tailpipe. If you’re looking to purchase some new gloves, I suggest buying some mittens.

Dressing appropriately to ward off the cold is crucial. I’ve found my job is much easier when I’m comfortable and don’t have to worry about the elements. I used to despise winter, but now that I’m gearing up correctly, I don’t find the winter months to be so bothersome. ☺

Joe Gulotti (hardg43@gmail.com) is the superintendent at Newark (Del.) CC. To read his blog, visit thewalkinggreenkeeper.com.

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Definitely not one of t

What they lack in industry numbers, they make up for with passion for their jobs, the golf business and promoting their work. They're women in golf.



BY CLARA RICHTER

Brandi Merrick is assistant superintendent of golf maintenance at Grove Park Inn in Asheville, N.C., but she went to Iowa State to be an actuary because she loves math. She soon realized, however, that crunching numbers for an insurance company also meant long hours in the office, something on which she wasn't so keen.

"I changed to pre-vet med, and after about a year or so, decided I couldn't deal with the more gory aspect of that career," she says. "I was flailing."

She landed in the agricultural education program, and after taking a turf course and enduring a particularly brutal Iowa winter, decided she needed to move south. She applied for an internship on the grounds crew at Pinehurst.



Brandi Merrick

She finished her teaching degree in Iowa, but after five years of working in the classroom, she heard the call of the greens and moved to North Carolina to work on a golf course year-round.

Married to the job

Joy Negen is assistant superintendent at Desert Mountain Golf Club in Scottsdale, Ariz. She started her career, though, cutting something much different from grass.



Joy Negen

"I have 25 years of experience of hairdressing, and I am still currently licensed to be a hairdresser," she says.

Negen's husband is a superintendent, and she began helping her husband on the course three years ago, shortly after both

he guys



Bayer's Women in Golf event brought together about 50 female superintendents, assistants, researchers and suppliers from the U.S. and Canada for two and a half days of networking, professional development and agronomics. Women in attendance said the event was a powerful reminder that they are not alone in this traditionally male-dominated industry.

of their mothers passed away.

"I was cutting hair, helping him mow and working at the YMCA (...) he really needed help with the agronomy and the horticulture side. He needed help with the flower beds. It was just therapy for me."

When the couple moved from Minnesota to Arizona a little over a year ago, she got a job at Desert Mountain and soon was promoted to assistant superintendent.

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I was cutting hair, helping him mow and working at the YMCA (...) he really needed help with the agronomy and the horticulture side. He needed help with the flower beds. It was just therapy for me.”

JOY NEGEN



Brandi Merrick initially was concerned about operating the heavier equipment, but found that she was able to use it as an opportunity to prove herself.

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School's in session

Ana Alvarez is golf maintenance operations manager at Shinnecock Hills Golf Club. Like Merrick and Negen, she began her career doing



Ana Alvarez

something completely different.

A former Marine, Alvarez studied computer information systems. She started working at Shinnecock as an administrative assistant but eventually spoke with

John Jennings, CGCS, about helping out on the grounds crew. And so, once a week, on Sunday mornings, Jennings allowed her to try it out.

Over the course of a couple of months, she learned how to do everything the crew could do.

"I was like, 'Just give me a chance to see how I can do it.' It was like something that was meant to be. I was a natural, and I felt very proud of myself. And I was good at it, and I love it and here I am at the year's end, mowing anything (Jennings) throws at me."

She loves it so much that with Jennings' support, she's decided to go back to school. This winter, she will complete the UMass Winter School for Turf Managers certification program, which covers topics such as soil science, turfgrass diseases, weed management and irrigation.

And they said it wouldn't last

Alex Hills, assistant superintendent at Bay Hill Club and Lodge in Orlando, Fla., stumbled into her career in the golf turf industry by accident.

She was working at the equestrian stables at Grand Cypress when they closed in 2008 because of the economic downturn. Knowing that she liked to work outside and with her hands, she found herself a position on the grounds crew at the golf course and didn't look back.



Alex Hills

"Some of the guys didn't think I would last long," Hills says.

More than a decade, a turf degree and three

years of working with the PGA to get the course ready for the Arnold Palmer Invitational later, she's proven them all wrong.

Start young, stay awhile

Sally Jones, superintendent of Benson Golf Club in Benson, Minn., had a traditional path to her career in the turf industry. She started working on the grounds crew of Benson GC when she was 15 years old, then went to Penn State, where she earned her bachelor's degree in turfgrass science.

She was hired as superintendent of Benson GC when she was 22 years old.

"I applied and got (the job) and they low-balled me, probably because I was 22, so I decided I was OK and told them no, and they came back with



Sally Jones

a better offer," she says. "I decided I would take it as a stepping stone, and I'm still here."

She added general manager to her title in 2016, which she says makes the job a lot more stressful. However, it helped her get to know the membership and makes her more approachable, she says.

The rewards, the struggles

These five women were drawn to the golf turf industry in different ways, but their passion for what they do and the industry they've chosen to work in is undeniable.

Being able to work outside, working with good people and getting the opportunity to see how their hard work pays off are just a few of the reasons they cite for being happy in their chosen career field.

"I like being outdoors. I don't know if I could ever have an indoor job," Jones says. "That would be quite hard. I also like the versatility of the position. I always think I know what I'm going to do when I go to work each day, but it never turns out how I'm thinking."

Alvarez says that the industry — and working at Shinnecock — has given her a chance to succeed and grow. As an added bonus, she notes, the sunrises on the course are beautiful.

Negen says she still loves cutting hair, but she loves her current job at Desert Mountain

PHOTO COURTESY OF BRANDI MERRICK



more. She loves being outside and gets a thrill out of learning new aspects of the job from her peers and her coworkers.

Hills says that she values her position because it gives her the opportunity to see tasks through from start to finish. "I like taking a project from the dirt and making it into something gorgeous," she says.

Still, it can be difficult being a woman working in a position that more traditionally is held by a man.

Initially, Merrick was concerned that

Professional development was an important part of the Women in Golf event. Here, attendees learn that not everyone on a hiring committee may know the ins and outs of what a superintendent does and how to account for that in the hiring process.

she wasn't going to be able to meet the physical demands of the job, saying that she was concerned about it while working at Pinehurst the summer she was teaching. Still, she managed to spin it into something positive and find an opportunity to prove herself.

"I asked one of the assistants if I could do the job," she says. "I picked him specifi-

cally because I felt like he was kind of on the fence about me. He never was, but anyway, I asked him if I could do this job, and when I was done, he looked at me and said, "You just worked your tail off."

Some women mention feeling like they don't always fit in. Sticking out like a sore thumb never is comfortable, but it's how

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PHOTO BY: CLARA RICHTER



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Continued from page 19

some women in the industry say they often feel when attending events or trade shows.

“I feel like it hasn’t been easy to be included, and I think that’s just because there is such a huge difference between numbers in men and women,” Jones says. “If you go to a meeting and you’re the only female, it’s hard to go and introduce yourself to men, and I’m sure if the roles were reversed it would be hard for men, also.”

Hills adds that it’s intimidating to walk into a room filled with 50 men.

Clearly, the fear of not fitting in hasn’t held back any of these ladies. In fact, Merrick views it as a positive thing.

“I feel like it’s an advantage, because I stand out more,” she says. “I feel like it’s easier for people to remember me.”

But Hills says it can be a double-edged sword. There are negative aspects to being the only woman in the room, but there

also are advantages.

“We are a close-knit industry, so I think once you get your name out there and people recognize you, it gets better,” she says. “It is a double-edged sword because coming in as an underdog gives you the opportunity to go out and prove yourself.”

Encouraging more women

As the labor crisis continues to hit courses around the country, filling out crews with more female employees may be a way to mitigate some of the strain put on crews that are lacking a few extra members.

Getting the word out to young women — and just young people in general — is an important first step to boosting the number of females working in the industry. Many people don’t even realize there are career opportunities in the field, and therefore, they don’t know to pursue them, according to Hills.

Alvarez uses Twitter to promote her job and the industry as a whole, tweeting about turf and various happenings at Shinnecock. She says she also follows a lot of turf groups and has been thinking about attending job fairs at local schools.

“High school or college students don’t think this is something you can go to school for,” she says. “I tell the girls who work here that you can go to school for this.”

Merrick says she talks about her job a lot and shares about it on social media. She also encourages anyone who might be interested to go out and try the job. She advises taking advantage of the many courses that hire part-time interns in the summer.

She and Hills echo Alvarez’s sentiment that many people just don’t know about the job. “I’ve talked to many assistants, and for the most part, most of the people I know found out about this job later in life and came into it later in the game,” Merrick says.

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Hills says that before she was in the industry, she didn't know that her current career was even an option. She encourages industry members to target high schoolers before they go to college, when you can get them thinking about alternate career paths.

For Merrick, involvement also is an important aspect of getting the word out that there are jobs for women and young people in the golf turf industry. She is on the assistants committee for the Carolinas Golf Course Superintendents Association, attended the South Carolina FFA convention in June 2019 and is in the process of starting a First Green program at Grove Park Inn.

Negen says she takes the opportunity to share her knowledge with anybody willing to learn, because so many people—including her husband—have taken the time to share their knowledge with her.



Five proud graduates of The Ohio State University attended Women in Golf. From left, Renee Geyer, Elizabeth Guertal, Carey Hofner and Jennifer Schneider spell out their alma mater, O-H-I-O, punctuated with a thumbs up by Brianne Kenny.

Diversity is important

Spreading the message to young women that there are careers for them in the golf turf industry is important, Merrick says.

She encourages managers to cultivate diverse crews because, if nothing else, it's fun for morale.

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// WOMEN IN GOLF

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“We try to celebrate our diversity,” she says. “We had interns from Eastern Europe, and they brought in some of the food that they eat, and everyone loved that. And we have a guy from El Salvador and one from Mexico, and they will bring in their food.”

Promoting a diverse team, whether that means incorporating more females, different ethnicities or other backgrounds, is more than just a fun way to spice up the lunchroom, these women say. It’s important to any crew because it means there are more perspectives and ideas from which to draw.

“Everyone looks at everything differently,” Hills says. “Everyone brings different sides to the puzzle, so having diversity makes you a more well-rounded team.”

Alvarez adds that everyone brings different skill sets, and the more of those you



Attendees of Women in Golf spent the final day of the event learning about their different working styles by completing a workshop in psycho-geometrics.

can pack into a team, the better. She says the women on the crew are more detail-oriented, while the men tend to be a bit more laid back. She says it’s important to take everyone’s suggestions into consideration because not everyone thinks the same.

For that reason, Jones has tried to keep women on her crew the entire 16 years she’s been at Benson GC. “Each person brings a different outlook to the game, and to have more than one viewpoint would only strengthen your team.”

PHOTO COURTESY OF BAYER

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Copperhead's par-3 13th hole, dubbed "Forced Carry," plays at 199 yards during the PGA Tour's Valspar Championship.

Four courses, two superintendents, one vision

Ryan Stewart and Rob Koehler are conserving millions of gallons of water annually, while also overseeing four courses and a staff of nearly 70

BY CHRIS LEWIS

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ALL PHOTOS COURTESY OF INISBROOK RESORT

As the home of the PGA Tour's Valspar Championship, Palm Harbor, Fla.'s Innisbrook Resort is the center of the golf world's attention one week every year. After all, major champions like Jordan Spieth, Vijay Singh, Jim Furyk and Retief Goosen are past winners.

There is, of course, much more to the resort than the Copperhead Course, which annually hosts the event. For starters, the resort provides guests with three restaurants, a spa, conference facilities, a variety of pools (including the Loch Ness, a large-scale pool with two waterslides), 11 tennis courts and 485 guest rooms and suites, each of which were renovated this year.

But above all, the resort offers golf, and plenty of it. Aside from the renowned Copperhead Course, it features three other courses, the Island, the North and the South. To properly oversee all four courses at once, superintendents Ryan Stewart (of the Copperhead and Island Courses) and Rob Koehler (of the North and South Courses) ensure they provide a consistent management style to their 65 staff members.

With regard to agronomic practices and daily routines in particular, they blend whatever works on each course into one seamless operation, an efficient and cost-effective method that has proven successful in the last few years. For example, they work together on each closing schedule (for maintenance) a year in advance and then plan their agronomic practices around these schedules.

"We set up aerification in such a manner that we all aerify our greens at 0.5 inch in May and June," Koehler says. "The schedule is set so that we take the aerifiers from one course to the next weekly through the month. This way, we just stock one size of tine for all four courses monthly.

"We also save on labor by not needing to reset the aerifiers after each use. We

use this practice for each rotation of size, dependent on closing length and the time of year."

Minimizing fertilization

At the same time, Stewart and Koehler also oversee similar fertilization and IPM programs. Because of this consistency, they have to stock only a minimum amount of pesticides at any given time. The North and South Courses alone have 26 tons of fertilizer (applied by six employees) for each application, using the same blend and application rate every time, so there's lower potential for errors and misapplications. Ninety percent of the fertilizers are slow release, and every fertilizer is custom blended.

"We also try to rotate as many different fungicides as we can with different modes of action," Koehler explains. "This technique guarantees there's no disease resistance or tolerance buildup, so that whenever fungicides are needed, we can use the minimum application rates with the most effectiveness."

Stewart and Koehler meet weekly to discuss their tasks for the upcoming week. In doing so, they avoid attempting to use the same equipment on different courses. And, of equal importance, they maintain constant communication with Innisbrook's director of golf on events, course closures and the like, to ensure everyone on staff is working together efficiently. "I would say communication with everyone on the property has to be at its best in order for Innisbrook to be successful," Stewart says. "As a result, members and guests will have the best experience possible."

A well-mapped irrigation system

There is no doubt about it. Innisbrook's Copperhead Course is the focal point of the resort. Its name recognition is powerful, primarily because of its marketability as the annual host of the Valspar Championship. With this in mind, Stewart and his team decided to replace the Copperhead Course's irrigation system before any of



the other courses' systems.

Replacement began in 2015, as Stewart first focused on the course's pipes, replacing each one (originally built in 1970) with HDPE piping. His team worked quickly, because the course's irrigation system was failing daily. Pipes were breaking, and irrigation heads were running all night long.

"The impact has been huge," he states. "We now have a well-mapped irrigation system that has helped our operation run more efficiently."

Furthermore, Stewart decided to transition from a hydraulic irrigation system to an electric system during the same year that the Copperhead Course's pipes were replaced. The electric system, a Toro Lynx, communicates to various satellites throughout the course, which are connected to each sprinkler head — more than 1,200 in all.

"When we had our hydraulic system,



Ryan Stewart and Rob Koehler manage 65 employees between Innisbrook Resort's four courses. Communication among them is key.

the tubes in the control were so old that they weren't working properly, leading to issues pretty much every day," he adds. "In particular, the tubes broke in the ground and the heads ran nearly 24/7."

"The new system has given us the power to run as we need to," he says, "so that there is considerably less wasted water on the course. With water supplies getting lower and becoming more critical, this upgraded irrigation system has been an enormous help to conserving a significant amount of water."

From 2015 to 2016, the first year in which the new irrigation system was fully implemented, Stewart and his staff saved more than 11 million gallons of water. Such savings will be vitally important in the future, especially for Innisbrook's maintenance department, as regulations concerning water savings continue to pile up.

Make water work better

At the same time, Koehler has been focused on water quality, attempting to determine the best way to make the resort's water "work better" for him and his staff. To do so, he has been using a neutralizer product that is more readily available and safer to use than sulfuric acid.

"As a 15-0-0 with 16 percent sulfur and a pH of approximately 1, the neutralizer product is injected at a rate of 25 gallons per 100,000 gallons of irrigation, a calculation determined by a laboratory, into our irrigation system to neutralize salts, free up nutrients in the water and lower pH," Koehler says. "In turn, it also aids in neutralizing and freeing nutrients bound in the soil, similar to sulfuric acid irrigation injection."

The neutralizer has essentially changed the North and South Courses' water from irrigation water to rainwater in

the course's pipes before it's sprayed out of the sprinklers. Consequently, Koehler has been able to reduce nitrogen inputs by roughly 50 percent on both courses' greens.

"I'm amazed at its performance, as I've seen better soil testing results than ever before," he states. "I would certainly recommend it to anyone."

Meanwhile, on the Island Course, Stewart and his staff use a TDR (a soil moisture meter) to determine how much irrigation they need to run at night. The TDR monitors greens to determine whether or not there are any localized dry spots, which can be watered before golfers ever notice them. This practice not only ensures guests have the best experience possible, but it also helps Stewart maintain a hard, fast course that also saves water long term.

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// FOUR COURSES, ONE VISION



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The importance of liquid overseed

To further increase water savings, Stewart transitioned from overseeding on the Island Course to using a “liquid overseed” program.

“Now the 419 bermudagrass has no competition and has been able to thrive and provide excellent playing conditions throughout the year,” he says.

All of the Island Course’s fairways are sprayed with a liquid overseed (featuring some iron, a 25-0-0 nitrogen source and a pigment), which helps provide color, along with the appearance

Pigment in liquid overseed gives fairways a boost in color and the appearance that they have been overseeded.

that the fairways have truly been overseeded. The method has proved so valuable that only par-3 tees have needed overseeding the last five years.

They use fertigation on the Island and Copperhead Courses, and it has helped maintain the courses’ fertility and grass health while supplementing the resort’s granular program throughout the year.

“We’re also able to put wetting agents through the fertigation tanks,” Stewart states. “This helps us in our dryer months, since we’re able to hold moisture in the plant rather than having hydrophobic areas all over the golf course.”

As Stewart and Koehler prepare for the future, they’re looking forward to installing new irrigation systems on the Island, North and South Courses as a means to further conserve water, improve soil and playing conditions and save potentially thousands of dollars long-term.

“We already have the designs and have priced out the jobs with various contractors,” Koehler explains. “We’re hoping to begin one of the courses in 2020, but the course hasn’t been determined yet.”

“We’re always looking for ways to improve our maintenance practices and enhance our golf courses,” Stewart adds. “I truly believe the best is yet to come for Innisbrook.” ©

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// **MAP IT OUT**

GOLF COURSE SOIL-MOISTURE MAPPING

By Chase Straw, Ph.D., Nick Ashwill and Jack MacKenzie, CGCS

Golf course superintendents often irrigate fairways based on a feeling. However, using objective data to create soil-moisture maps of golf course fairways — as well as taking advantage of valve-in-head control — can significantly reduce water consumption by programming irrigation systems to match soil-moisture variability.

In an effort to increase the use of soil-moisture maps for improved irrigation decisions, and to allow superintendents a low-risk option to get their feet in the door with mapping technologies, the University of Minnesota and the Minnesota Golf Course Superintendents Association (MGCSA) have collaborated to create a practical fairway soil-moisture mapping initiative.

A detailed protocol outlines step-by-step instructions to collect geo-referenced soil-moisture data with a GPS-equipped soil-moisture meter, which can create fairway soil-moisture maps and irrigation management zones with free mapping software.

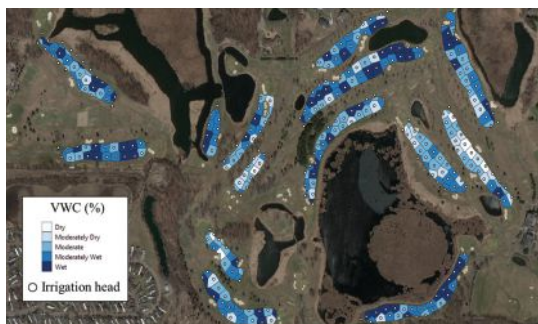
A system also is being put in place in which those who don't have a GPS-equipped soil-moisture meter can borrow a device owned by the MGCSA or a fellow member. The MGCSA anticipates several positive outcomes from this initiative, such as water conservation, reduced

water cost, legislative appreciation, state agency acknowledgement with potential long-term impact on water priorities and added MGCSA membership value.

The protocol is available to everyone and is applicable at any golf course. You may download it for free at <https://z.umn.edu/moisturemapping>. ©

Thank you to the Minnesota Golf Course Superintendents Association for its support developing the soil-moisture mapping protocol.

Chase Straw, Ph.D., and Nick Ashwill are at the University of Minnesota, and Jack MacKenzie, CGCS, is at the Minnesota Golf Course Superintendents Association. You may reach Chase at cstraw@umn.edu for more information.



Final map after completing the soil-moisture mapping protocol, where irrigation classes have been assigned to individual irrigation heads based on surrounding soil-moisture values (percentage volumetric water content).

NEWS UPDATES

ANUVIA TO OPEN ANOTHER FLORIDA LOCATION

Anuvia Plant Nutrients has entered into a long-term strategic relationship with The Mosaic Co. to help meet the increased demand for its bio-based sustainable and environmentally friendly plant nutrients.

The companies have signed a long-term lease arrangement that provides significant benefits to both parties and the surrounding community, the company said. Anuvia will utilize a portion of Mosaic's shuttered Plant City phosphate production facility and repurpose existing infrastructure to increase its production capacity to up to 1.2 million tons. Currently, Anuvia's facility in Zellwood, Fla., produces 80,000 tons annually.

As production increases, the company plans to add approximately 135 new employees with an average salary of \$70,000. It will be the company's second Florida location and is expected to be operational by the second quarter of 2020.

"Mosaic has been looking to partner with successful, innovative companies, and this arrangement, which includes an equity position, is an excellent fit for us," said Walt Precourt, Mosaic senior vice president, strategy and growth. "Both companies are committed to operating safely and sustainably ... We look forward to exploring opportunities to further expand our relationship."

THERE'S NO EASY QUESTION CONCERNING POA ... (BUT) IF TURFGRASS IS COMPETITIVE, POA HAS LESS OF A CHANCE TO GET A FOOTHOLD."

Jay McCurdy

(see story on page 28)



Poa annua can be identified by boat-shaped leaf tips and a white inflorescence that set it apart from surrounding turfgrass.

Poa no more-a

“There’s no easy question concerning *Poa annua*,” says Jay McCurdy, turfgrass Extension specialist at Mississippi State University.

Poa annua, also known as annual bluegrass, is a grassy weed that’s sometimes used as a putting or playing surface in certain parts of the United States. *Poa* is widespread throughout the world, but it grows best in temperate climates. It stands out as having boat-shaped leaf tips and a white inflorescence.

According to McCurdy, it’s probably the most prolific and adaptable grassy weed that turfgrass specialists combat.

Typically, control options are more limited in cool-season turf, he says, because there’s no chemistry to control it. Many of the cultural practices that could get rid of the

weed lend themselves to the culture of *Poa*, so it becomes a big problem, he adds.

There are some herbicides available to treat *Poa* in the Southeast; however, they are fairly limited because of herbicide resistance. *Poa* adapts quickly, and according to McCurdy, if there is a model species for studying herbicide resistance, it’s *Poa*.

If a superintendent did want to treat chemically, a preemergence program is the best option, McCurdy says. And, as always, the best management tool a superintendent has is healthy, competitive turfgrass, he notes. “If that turfgrass is competitive, *Poa* has less of a chance to get a foothold.” ©

PHOTO COURTESY OF FMC CORP

Nufarm

AARON HATHAWAY

Technical services manager



Poa annua is able to produce and disseminate large amounts of seed in low-mowed turf. Even if a turf manager successfully controls some of it, there is more in the soil seed bank ready to germinate and infiltrate the turf stand. It acts more like a true winter annual in warm-season turf that germinates in the fall and dies the following summer with the heat. In cool-season turf, however, perennial biotypes can persist throughout each season. In warm-season turf, use preemergence and postemergence products in the same season to reduce populations. Stick with it from year to year to deplete the soil seed bank. In cool-season turf, superintendents can apply plant growth regulators (PGRs) and herbicides at low rates throughout the season to slowly reduce populations. Reduce rates and shorten application intervals to slowly convert. The goal is to affect the growth of the annual bluegrass more than creeping bentgrass. Reduce irrigation and nitrogen applications to favor creeping bentgrass even more in the summer heat. When regrassing, have a plan in place to control annual bluegrass in the first year of establishment.

FMC Professional Solutions

TINA BOND

Technical service manager



On golf course putting greens, *Poa annua* can impact the playability of the surface. In warm-season turf, it can create voids in the turf canopy during spring green-up. Reducing shade and improving drainage favors turfgrass competitiveness that can outcompete annual bluegrass. Irrigating as needed with deep, infrequent irrigation cycles will assist in reducing annual bluegrass. Applying fertilizers low in phosphorus and nitrogen in fall will maintain turfgrass growth and not encourage excessive *Poa* growth. Aerification can discourage *Poa* growth and development. On golf greens, the most common approach is using plant growth regulators. In higher-cut turf, you may achieve effective control with properly timed preemergence herbicides applied in fall, from late August to October. Because of increased levels of resistance to multiple modes of action, implement rotational practices to reduce the risk of selecting resistant populations.

Syngenta

DEAN MOSDEL

Technical services manager



Best practices for controlling *Poa annua* aren't simple. In warm-season turf, where *Poa annua* is primarily an annual biotype, you may apply preemergence herbicides in the fall in non-overseeded bermudagrass. Control escapes with sulfonylurea. You may use nonselective herbicides on dormant bermudagrass. Consider all these options because of *Poa annua*'s propensity to develop herbicide tolerance. Herbicide options are limited in ryegrass overseedings. Superintendents may mix plant growth regulators with ethephon to enhance *Poa annua* seed head control. Control in cool-season grasses is more difficult. Preemergence herbicides are selective options in most cool-season turf. Postemergence herbicides have shown variable control with limited turf tolerances. *Poa annua* is more competitive at lower mowing and as a perennial. Seeding and germination can occur throughout the year, so success with preemergence herbicides is limited. Some superintendents commonly use PGRs for control in established cool-season turf.

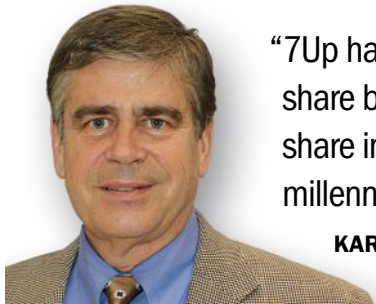
Quali-Pro

IAN RODRIGUEZ

Technical services manager
Control Solutions Inc.



Poa annua is a bunch-type winter annual grass that typically is a lighter green than most other turf types, making it a bit of an eyesore. It's prolific at producing creamy white seed heads that really stand out. It isn't so bad texturally, but the color and seed production make it stand out as a weed. The biggest problem is it outcompeting other grasses. There are a few places where it's a desired turf, but in most of the country, it's a weed. Make sure you have a preemergence program in place in the fall before it germinates. There are some postemergence options, depending on the desired turf, and as always, starting with competitive, healthy turf is key. However, in places like the Southeast, the main turf is going dormant when *Poa* is thriving, so it struggles to compete. You may use a postemergent in conjunction with a preemergent. *Poa* is one of those weeds where there is resistance potential because it is so widespread and prolific. One trend I'm seeing is combining active ingredients, along with rotating products.



“7Up had declined to 2-percent market share by 2000, then to a 1-percent share in 2010. I don’t think most millennials know what 7Up is.”

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

7Up and the early buying season

When I was sick growing up, my mom would make me drink 7Up. She thought it had medicinal properties and would take care of my ills. 7Up, which I now find at my grocery store on the bottom shelf of the soft drink aisle, hit the market two weeks before the 1929 stock market crash.

7Up was a cool soft drink. It came in 7-ounce green bottles, had a lemon-lime taste and was uncaffeinated. In comparison, Coke came in 6-ounce bottles and was caffeinated. When originally formulated, 7Up and Coke contained mood-enhancing or stabilizing drugs. With Coke, it was cocaine, and with 7Up, it was lithium citrate.

At the turn of the 20th Century, lithium citrate was a psychiatric treatment for depression and bipolar disorder and was seen as a hangover cure. The name “7Up Lithiated Lemon Soda” preceded 7Up.

The paper label on 7Up Lithiated Lemon Soda read, “Seven-Up Settles the Stomach,” and “For hospital or home use.” Further down, the label read, “... It blends out the harsh features. Disperses hangovers. Takes the ‘ouch’ out of grouch.” Released during the Great Depression, 7Up probably helped relieve a little personal depression.

In 1948, the federal government banned lithium citrate from soft

drinks and thus from 7Up. Twenty years later, even with the removal, my mom and thousands of other moms still poured 7Up as an elixir.

From the 1940s to the early ’70s, 7Up was the third-best-selling soft drink, behind Coke and Pepsi. In 1972, 7Up was running ads that branded it as the Uncola, with no caffeine — “Never had it. Never will.” The ’70s were the peak for the brand. 7Up had declined to 2-percent market share by 2000, then to a 1-percent share in 2010. I don’t think most millennials know what 7Up is.

7Up declined for several reasons, including the introduction of diet soft drinks, energy drinks and, for some reason, a constant change in advertising. Since the “Uncola” run ended in the early 1990s, 16 different advertising campaigns have taken place.

Fall is a critical time in golf course management. The early order period for turf products occurs roughly from October through December, depending

on the company or vendor. There will be numerous product options available during early order, with various discounts, promotions and advertising. It’s like walking down the soft drink aisle of a grocery store. There are so many choices. Do you stay with what you always buy, try something new based on the label or just find something to pick up?

Golf course superintendents need an agronomic plan that focuses on providing healthy turf and meeting the expectations of golfers and/or members.

Before purchasing products, focus on what pests you need to control and, in a generic way, define the product properties you desire. For example, will you take a preventive or curative approach? Do you want to use a contact or systemic? What’s your desired control period? Finally, what’s the chemical family you prefer to use? We make decisions too often based only on cost and the effectiveness of advertising.

By clearly focusing on what you need in the context of your agronomic program, discussion with sales representatives can occur in an informed manner regarding the type of product you desire.

I have collected 7Up bottles for a few years. Why, exactly, I’m not sure. Maybe as a childhood memory or just for their uniqueness of being green. I store the bottles on a garage shelf. I occasionally get them out and look at them. Early buy programs, however, are not for collectors.

Golf course superintendents need to be methodical and informed when choosing early order products, rather than just buying something. Sound agronomic plans prevent purchases that end up on the bottom shelf of a maintenance facility. ☺

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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Maxtima and Navicon Intrinsic: New fungicides to help superintendents

Renee Keese, Ph.D., is a biology R&D project leader in turf and ornamentals for BASF. She leads numerous field trials every year on new and commercially available active ingredients for use in turf. You may reach Renee at renee.keese@basf.com for more information.

Q Please provide a brief history of the active ingredient mefentrifluconazole. Mefentrifluconazole is a DeMethylation inhibitor (DMI) fungicide classified in Fungicide Resistance Action Committee Group 3. Field evaluations of mefentrifluconazole began in 2013, with an initial focus on disease efficacy and turfgrass safety.

One of the unique characteristics of this active ingredient is its turfgrass safety. The typical growth regulation and injury during hot summer conditions and growth regulation typical of most DMIs have not been observed with mefentrifluconazole, even under the most stressful growing conditions tested. Ultradwarf bermudagrasses were tested early in our research, and results were consistently surprising: no injury. No thinning, stunting or discoloration. This should give superintendents confidence to include this treatment in rotations during the stressful summer months.

In addition, scientists in all our testing did not observe any growth regulation from mefentrifluconazole.

Since 2013, BASF has worked with university scientists and private contractors to conduct more than 200 field experiments at locations all across the country, targeting many diseases.

Q What diseases are Maxtima and Navicon Intrinsic most effective in controlling? Maxtima contains mefentrifluconazole and provides excellent control of dollar spot, anthracnose and spring dead spot, along with other diseases. The application rate is 0.2-0.8 fl oz /1,000 sq. ft., with the 0.2 fl oz /1,000 sq. ft. for dollar spot only, and it's applied every 14 days. Other diseases are controlled at higher rates, and an application interval varies from 14 to 28 days.

Navicon Intrinsic contains mefentrifluconazole and pyraclostrobin and is labeled to control 28 diseases. It provides excellent control of dollar spot, anthracnose, spring dead spot, take-all patch, *Pythium* root rot, fairy ring, patch diseases and snow molds. The application rate is 0.7 to 0.85 fl oz per 1,000 sq. ft., and the application intervals are disease dependent.

Q How should superintendents incorporate Maxtima and Navicon Intrinsic into their fungicide programs?

Because Maxtima contains a single active ingredient that is a DMI, it's an excellent rotation partner when using succinate dehydrogenase inhibitors (SDHI) and quinone outside inhibitor (QoI) fungicides in a fungicide program. Navicon Intrinsic contains two active ingredients, a DMI and a QoI; it can be used in rotation with SDHI fungicides or any other class of fungicides.

To prevent fungicide resistance from developing, do not apply either Maxtima or Navicon Intrinsic more than two consecutive applications.

Q What tips do you have to make Maxtima and Navicon Intrinsic applications most effective?

First, apply both Maxtima and Navicon Intrinsic preventively. While both will provide curative control, they are more effective when used in this manner. Apply in a spray volume of 2 to 4 gallons water per 1,000 sq. ft. We've observed no mixing issues with Maxtima or Navicon Intrinsic.

Maxtima and Navicon Intrinsic are both rain fast one hour after application. This

is a positive when treating foliar diseases ahead of rain. If the products are being applied for brown ring patch, fairy ring or other soil diseases, be sure to add a wetting agent to the fungicides.

If the label recommends irrigation after application, do so immediately if possible, or within 10 or 15 minutes after application, because the products become rain fast so quickly.

Q What is the environmental profile of Maxtima and Navicon Intrinsic?

Maxtima and Navicon Intrinsic both have a favorable environmental profile, with no major environmental concerns. Mefentrifluconazole was registered as a reduced-risk fungicide by the U.S. EPA. This is the only DMI to receive this designation.

Superintendents need to follow common sense safety precautions, including the use of personal protective equipment, and read and follow all label directions.

Maxtima, Navicon and Intrinsic are registered trademarks of BASF. ©



Clark Throssell, Ph.D., loves to talk turf. Contact him at clarkthrossell@bresnan.net.



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// MUST-HAVE NEW PRODUCTS



1



2

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1 PowerDrive golf car solar panels

PowerDrive Golf Car Solar Panels by **POWERFILM SOLAR** can help increase driving range by up to 25 percent and extend the battery life by up to 50 percent, according to the company. The system weighs less than 5 pounds and doesn't require any special tools for installation. The solar panels can help save 175 pounds of carbon dioxide emissions per year and boast a lower charging cost to save up to 20 percent or more on yearly electricity costs, PowerFilm Solar said.

PowerFilmSolar.com

2 Premier bag stand

STANDARD GOLF's Premier bag stand is multifunctional and features a drink cup holder, tees and two molded areas for keys, phones or other items users want to bring to the range. There is space for a seed and soil bottle and grooved notches so individual clubs can sit correctly in place and not slide together or fall out, the company said.

StandardGolf.com

3 50G ball washer

The 50G ball washer by **WITTEK GOLF** delivers more than 20,000 sparkling clean range balls per hour to the tee line with more than 15 feet of double-cleaning power. The all-weather motor cover protects against sun, rain and other weather. The one-piece interior ball guides provide increased ball axis rotation and excellent cleaning. It also features a 0.5-horsepower, high-torque gear motor.

WittekGolf.com



3



4



5



6

4 | RP-1200 range picker

Featuring advanced automation, guidance and safety features, **ECHO's** RP-1200 range picker takes the hassle out of picking the range by collecting balls 24/7, rain or shine. Pairing it with the TM-2000 robotic mower means users can expect great-looking turf — without having to close the range for mowing. The machine does its work in emissions-free silence and can be controlled from a desk or smartphone. EchoRobotics.com

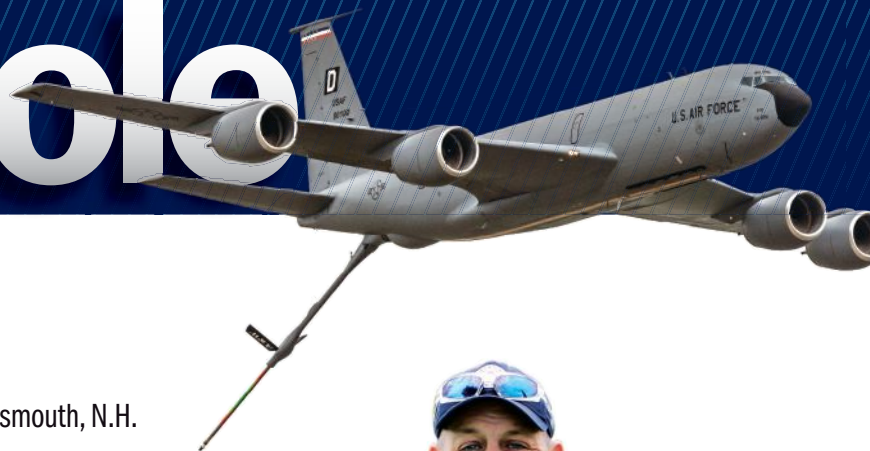
5 | Miltona club washers

MILTONA's line of recycled plastic club washers is available in both round (\$399) and square (\$475) options. The club washers look great and perform well, too, according to the company. Superintendents may choose from black, green, brown or a two-tone combination of these colors. Miltona.com

6 | Declaration creeping bentgrass

Declaration creeping bentgrass, developed by **LEBANONTURF**, exhibits high turf quality and dollar spot resistance. Reducing dollar spot through genetics has a tremendous impact on how superintendents manage their turf, with large savings for maintenance and reduced environmental concerns, the company said. LebanonTurf.com

The 19th Hole



E.J. Chea

SUPERINTENDENT // Pease Golf Course, Portsmouth, N.H.



E.J., what can I get you? Maker's Mark and Diet Coke, with a lime.



Tell me about your family. My wife is Beth. Our son Graham is 8 and a half. And we have a yellow lab named Ellis.

What teams do you root for?

Boston sports is the easy answer. I try not to say Patriots. Too many people don't like them.

Tell me about Pease Golf Course.

It's been three different clubs since 1901. It was a private club from 1901 to 1951. Then the U.S. military took over the golf course for Pease Air Force Base, and it was a military course. In 1991, the military closed here and it's ... a municipal course is the best way to describe it today. We are a 27-hole facility, and we are crazy busy. We try to average 50,000 rounds a year, plenty busy for a northern climate.

I've never seen a tee box so close to a runway... what kind of planes do you see come in and out of here?

We see all sorts of aircraft out here. Air Force One, Marine One, F-16s, F-22s, A-10s. The KC-135 Refueling Tanker is the flagship plane of Pease. The Blue Angels and Thunderbirds are out here regularly. When there's a special plane scheduled to come in, our parking lot gets swarmed with plane aficionados.

// BEST ADVICE

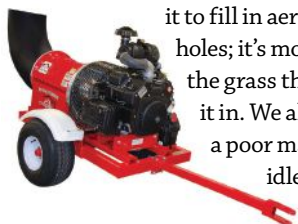
"SURROUND YOURSELF WITH THE BEST PEOPLE YOU CAN FIND. YOU'RE ONLY AS GOOD AS THE PEOPLE AROUND YOU."



How many years have you been president of the New Hampshire GCSA? Four years, going on a fifth.

We're on a best management practices push for the (GCSAA.) Some guys on the board and I have put so much time in on it, we want to see it through. We'll be done with it next year, and then I'll step down.

What's your favorite tool in the shop? Our turbine blower. We use it for so many things other than blowing leaves. We use it to clean drains. We use it to fill in aerification holes; it's more gentle on the grass than dragging it in. We also use it as a poor man's fan. We idle it down, fill up the



tank and use it to relieve surface temperatures on some of our greens.

Fill in the blank: The job would be perfect if you could just get rid of _____. Unrealistic expectations. Every course has a budget. There are certain things you can do when X is your budget ... but when Y is your budget, it just doesn't pay for it.

How is your crew there? They're great. I have four people with over 20 years experience. I have to mention Bea ... she's been here 39 years. She's one of our best mowers. She trained me my first day I ever set foot on a golf course! Now she works for me, but I joke that she's the boss.

As interviewed by Seth Jones, Oct. 14, 2019.

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