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A Deeper Respect

ABOUT THE COVER: Coastline holes at Corales Golf Club are reconstructed and improved after being hit by hurricanes. Photo courtesy of Puntacana Resort & Club.

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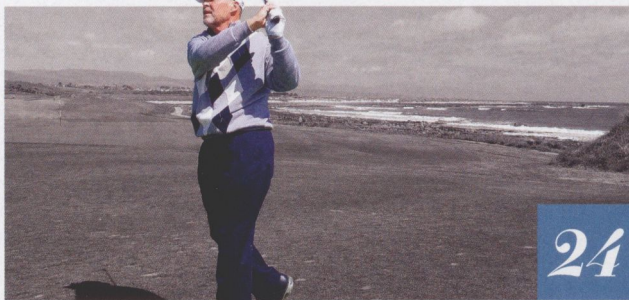
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FAST RISERS AND METHODIC MOVERS

We all know, and perhaps envy, the fast risers in our industry. Fast risers find turf jobs as teenagers, graduate from four-year colleges at age 22, immediately start working for a boss with connections and land dream jobs by their late 20s or early 30s. Most of us – and the people we manage – are not that person.

After being too cheap to spend \$28, I waded through a 30-person-deep library waiting list to obtain a copy of David Epstein's recently released book "Range: Why Generalists Triumph in a Specialized World." One of Epstein's major points should limit career or life loathing: "Don't feel behind."

Too many people in all industries, and especially in one filled with highly motivated, educated and prideful professionals, do feel behind. Every fall and winter, assistant superintendents scurry for head jobs and established superintendents seek openings at what their turf buddies might view as more prestigious facilities. Some seek new jobs for understandable reasons – family, increased compensation, change of scenery, enhanced fulfillment. But industry demons abound. Whether it's originating from a colleague, professor, vendor, an association or somebody on Twitter, a sense of being behind permeates. Feeling behind can lead to poor decisions such as taking the first available head superintendent job, instead of the right one, or prematurely fleeing the industry.

Meeting, interviewing and analyzing fast risers and methodic movers is a fascinating part of this job. Tyler Bloom, whose Sparrows Point team is the subject of the second part of the "Our Major" series (page 28), has demonstrated patience after a rapid rise. He worked at a pair of courses in high school, attended Penn State, served as an intern at three renowned clubs, earned a full-time gig at Oakmont Country Club and spent three years as an assistant at Sunnybrook Golf Club.

He accepted his first superintendent job at Sparrows Point, a 27-hole private facility in an industrial section of Baltimore. A maintenance budget under \$1 million forced Bloom to rethink his management practices. Sparrows Point struggled filling open positions, so Bloom extended beyond the specialized world of tournament-level turf to develop a work-study program using Baltimore County Public Schools students. Working at Sparrows Point expanded Bloom's range and his triumphs could help colleagues expand labor pools.

A few weeks after visiting Bloom, I flew to South Florida for Bayer's "Focus on Florida" discussion. I landed in Palm Beach for an event in Naples – don't ask – and darted to Pembroke Pines to see Zach Anderson at Hollybrook Golf and Tennis Club. I met Anderson at the 2014 Green Start Academy program for ambitious assistant superintendents. As fellow Green Start Academy alums received superintendent jobs or left the industry, Anderson spent four more years as an assistant before landing a leadership position at Hollybrook late last year.

In his spare time, Anderson crafted a South Florida-focused agronomic program and standing operating procedures. The documents now guide his short- and long-term decisions. Anderson graduated from Southern Illinois University in 2002. He waited 16 years for a job like the one he holds at Hollybrook, a club with golf-loving members and supportive bosses who encourage a 40-hour workweek.

Architect Brit Stenson is the subject of this month's Tartan Talks podcast. A University of Virginia landscape architecture major, Stenson didn't begin desinging new courses until turning 40. The reward for his patience? Opportunities to work alongside Annika Sorenstam, Nick Faldo and other golf greats as IMG's director of design.

Careers are personalized journeys. Squeezing people into templates hinders an industry enduring a talent shortage. Discouraging methodic movers is a perilous practice. **GCI**



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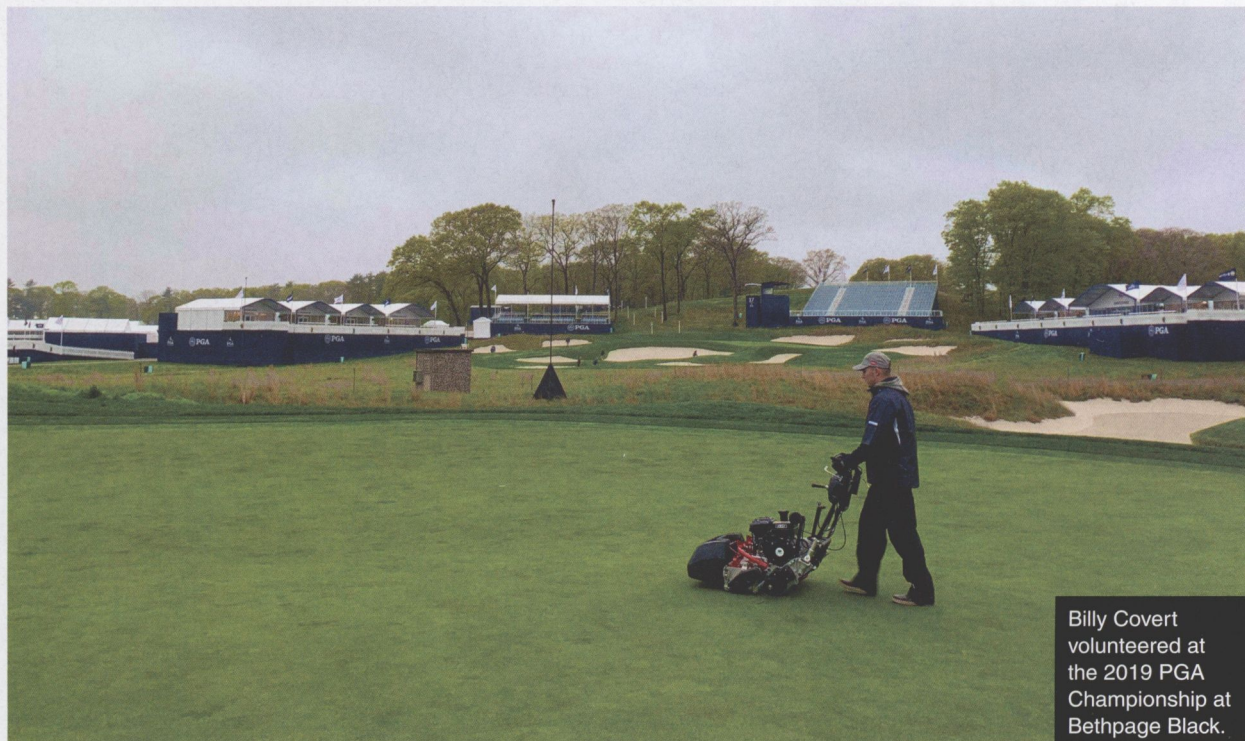


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NOTEBOOK



Billy Covert volunteered at the 2019 PGA Championship at Bethpage Black.

LEARNING IN STAN'S NEIGHBORHOOD

Billy Covert receives a scholarship presented by GCI honoring a Mid-Atlantic turf mainstay.

By Guy Cipriano

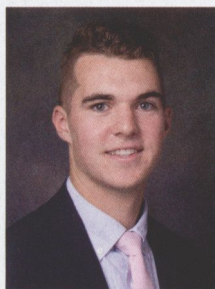
Billy Covert is living a phenomenal Philadelphia turf existence.

A native of West Chester, a suburb featuring serene, rolling land 35 miles from downtown, Covert begins his junior year at Penn State this fall following an internship at Pine Valley Golf Club.

Yes, *that* Pine Valley. The sand-infused private golf puncher rests on the New Jersey side of Philadelphia, less than 50 miles from Covert's home.

The Pine Valley experience follows a 2018 internship at Aronimink Golf Club. Yes, *that* Aronimink. The delightful Donald Ross course is 12 miles from Covert's home.

Throw in a pair of weeks of volunteering at the 2019 PGA Championship and 2018 BWM Championship, and Covert possesses a dazzling resume, especially considering he doesn't turn 21 until next year. The ambition and solid academic record led to Covert receiving the 2019 Stanley Zontek Memorial Scholarship presented



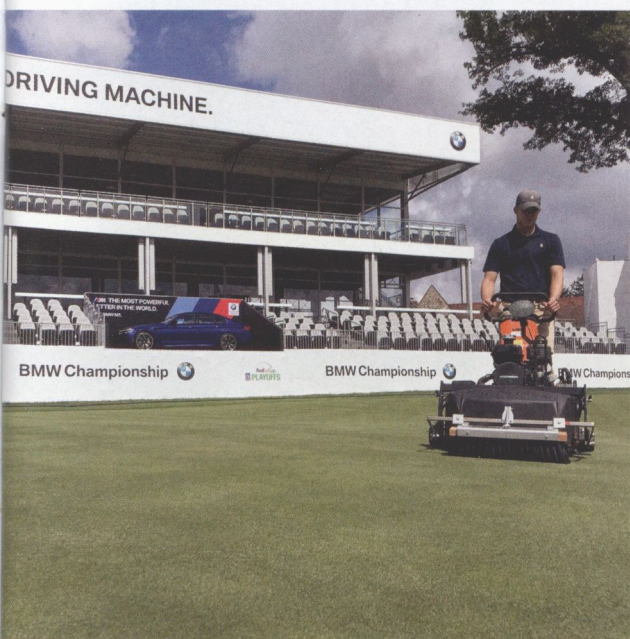
▲ Covert

by Golf Course Industry.

The scholarship, an unrestricted \$2,500 grant, supports a turf student with a passion for the game and honors Stanley J. Zontek, the former director of the USGA Green Section's Mid-Atlantic Region. Zontek died after suffering a heart attack at age 63 in 2012.

Covert has already walked some of the same land as Zontek. A Penn State graduate, Zontek was based in suburban Philadelphia at the time of his death. Zontek worked diligently with superintendents to improve playing conditions in the golf-rich Philadelphia region, which extends into southern New Jersey and northern Delaware. Zontek's Philadelphia and Penn State ties intrigued Covert as he composed his scholarship essay.

"I learned he's very hard-working



◀ Billy Covert served as an intern last summer at Aronimink Golf Club in suburban Philadelphia.

At Aronimink, he worked under veteran superintendent John Gosselin and obtained hands-on guidance from then-lead assistant Tim Kelly, now the head superintendent at Exmoor (Ill.) Country Club. In a Zontek Scholarship letter of recommendation, Kelly wrote, "Billy is honest, hard-working, dependable, and takes a great deal of pride in his trade. He asks the right questions at the right times and not only heeds advice well but implements thoroughly."

Covert left Penn State for a week last September to help the Aronimink team host the BMW Championship, the third leg of

the 2018 PGA Tour FedEx Cup Playoffs. Heavy rain pushed the tournament's conclusion to Monday. "I learned a lot about overcoming challenges," he says. "By Sunday, the volunteers had left, so for the Monday finish we only had our crew prepping for that final day. You saw what it was like overcoming a huge obstacle to get a course in tip-top shape with only a certain amount of people."

At Pine Valley, Covert works under longtime superintendent Rick Christian and receives hands-on training from assistant William Rocco. Covert averages 60 hours per week at the course and his bosses incorporate interns into a variety of assignments and projects, including spraying, mowing, irrigating, fertilization and sod work.

"I have been very fortunate with my internships," he says. "It has been awesome to work for John Gosselin and Rick Christian. You learn a lot with them, especially from their assistants who are very helpful with guiding you."

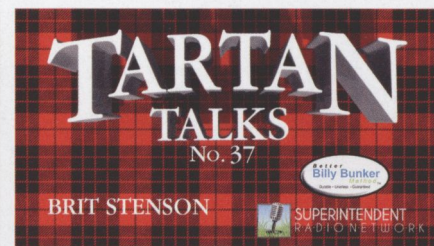
The past two summers have reaffirmed why Covert pursued a turf career at a young age. And when he peers into his long-term future, he already sees a geographic fit. "I want to end up in the Philly area," he says.

and he loved his craft. He prepped for major tournaments and worked with the research behind everything," Covert says. "I'm going to try to work at the research, learning more of the science behind what we're doing."

Covert, a turfgrass science major with a 3.73 GPA, spent the bulk of his first two academic years completing core courses. He's stoked about delving into the turfgrass science portion of the Penn State curriculum, which will include visits to the University Park research plots.

Watching neighbors mow their yards sparked Covert's interest in turf. By the time he turned 9, he was helping his father mow the yard. By the time he turned 11, Covert was helping rake community baseball fields and playing Chester County's fine collection of golf courses. Soon after discovering golf, he realized turfgrass maintenance careers existed and his state's giant university supports a renowned program in the subject. "Ever since I can remember, it's been Penn State, Penn State, Penn State," he says. "Once I got into Penn State, I knew I was going to Penn State."

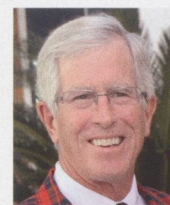
Major rewards, in practicality and prestige, are associated with Covert's early career decisions.



Tartan Talks No. 37

Brit Stenson

waited until his 40s to design golf courses. The work seemingly never ended once he obtained it.



▲ Stenson

Stenson joined Tartan Talks to discuss his career journey and 25 years as IMG's director of design. His work from 1991 to 2016 included designing 85 new courses alongside some of IMG's most recognizable golf clients, including Annika Sorenstam, Nick Faldo, Colin Montgomerie, Mark O'Meara and Sergio Garcia. The bulk of those projects occurred in Asia, giving Stenson a dirt-view glimpse of golf's global development. Before joining IMG, Stenson worked as the PGA Tour's director of design, so he also had a similar view of the TPC Network's rise. "It was a great front-row seat," Stenson says. "I was fortunate to be there."

How does a landscape architecture major break into golf course architecture? How do you educate global sports stars about technical topics such as drainage and soil composition? Is another golf development boom possible?

Enter bit.ly/BritStenson into your web browser to hear how Stenson answers numerous questions.



▲ Bayer Southeast field representative Dr. Sheryl Wells discusses the product development process during the "Focus on Florida" event in Naples.

Florida represents Bayer Golf's highest-grossing sales state by a wide margin. The company's golf product sales are double any other state, according to southern regional sales manager Mike Ruizzo. "It's a tremendous, tremendous part of our business," Ruizzo says.

Properly serving the state's vast golf market requires serious corporate investment. Bayer, for example, has three area sales managers and technical specialist Todd Lowe based in the state. Lowe joined the Green Solutions Team last August after 18 years as a USGA Green Section agronomist. A large portion of Bayer's research and development efforts occur in Florida, because a humid climate and seven-month rainy season means a "perfect storm" for pest infestations, says Southeast field representative Dr. Sheryl Wells. "If it's a pest, we probably have it here," Wells adds.

The sales managers and technical experts offer sport for superintendents and crews facing myriad challenges, ranging from extreme heat and moisture to the demanding snowbirds who flock to the state each month. Bayer area sales manager Zach Lane once tried describing the challenges he faced as a Florida superintendent in a contribution to Florida Green.

"Sometimes you don't know what you have," says Lane, who covers golf-fertile southwest Florida for Bayer. "Is it nematodes? Is it disease? Is a sprinkler not working? Is it Bermudagrass mites? You try to get focused and say, 'I have not thought of everything.'"

Although many facilities cater to snowbirds from the Northeast and Midwest, the challenges exist year-round. Falling behind on a disease/weed/pest identification or solving a course infrastructure issue can put a superintendent in a vulnerable position when northerners flock south in November and December. Even at ultra-private clubs, winter play can exceed 200 rounds. Unlike in cool-weather regions, where active turf growth coincides with peak play periods, Bermudagrass growth in Florida slows when the volume of play increases.

"You have to be as good as you're going to be by the end of September," says David Dore-Smith, the director of golf



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SHARPENING SOLUTIONS

course and grounds maintenance at Copperleaf Golf Club in Bonita Springs. "Once October hits, you can have overcast days and the Bermudagrass starts slowing down and not recovering. When it's the shortest days of the year as far as sunlight and you're getting 200 to 300 rounds a day divided by two for

golf cart traffic, people are expecting perfection because they're coming from up north where it's lush, green grass."

Dore-Smith participated in a "Focus on Florida" panel alongside TPC Treviso Bay's Gregory Jack and Misty Creek Country Club's Preston Stephenson. The trio has handled wicked storms

such as Hurricane Irma and perplexing weeds such as Tropical signalgrass to develop longevity in a state where many superintendents were born and raised elsewhere.

Mike Meisenhelter is an Ohio native who has spent 11 years as a Florida superintendent. Establishing and using a professional network, Meisenhelter says, is critical to helping a superintendent understand weather cycles, pests, disease and weeds, and the state's club culture.

"You have to be adaptable," adds Meisenhelter, who hosted a "Focus on Florida" tour at the recently renovated West Bay Club, where he became superintendent late last year. "The biggest thing is to pick up the phone. Let's say you're coming from Wisconsin. You're growing two different species of grass: cool season vs. warm season. Pick up the phone and ask somebody, 'What are you doing here?'"

Longtime Lexington Country Club superintendent Laurie Frutchey hasn't left Florida since enrolling at Florida State University upon graduating from a northeast Pennsylvania high school. Fitness represents her release from the rigors of managing turf and people in the state. Frutchey has completed an Ironman triathlon and runs regularly in the afternoon heat following summer shifts. "Some of those aggravations, you can run them out," she says. "If you can spend six hours on a bicycle, you can pull another weed that day. You have a little more energy."

The energy, along with a reliable industry network, allowed her to endure a 2018 outbreak of fairy ring on newly renovated greens. Frutchey spent hours observing, studying and attempting to control the disease on the greens. Members pressed her for answers that she didn't have. She turned to others, including Lane and Lowe, for help. She made it to her 18th year in a rewarding job as Lexington's superintendent. "Surround yourself with successful professionals," Frutchey says, "and you can get through it."

Poignant advice for succeeding in a big Florida business.

— Guy Cipriano

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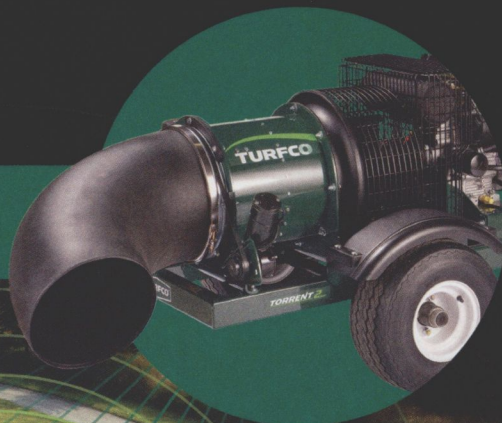
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The order of the day went straight to the point: “England expects that every man will do his duty.” In the 1805 Battle of Trafalgar, one of England’s more decisive naval battles, Admiral Lord Nelson called upon the sailors of his island nation to ward off an attack by the combined French and Spanish navies. It was a battle to the finish and one in which Nelson was mortally wounded. When told of eminent victory, among his final words were, “Now I have done my duty.”

Golf course managers today are charged with myriad duties, maybe not with life and death consequences, but critical nonetheless. Foremost among them is the recruitment, training and retention of a qualified and motivated staff. There is no more important role to the financial and operational well-being of courses simply because so many moving parts require near constant attention.

What’s more, the job is getting tougher. The U.S. has more job openings than unemployed people, a situation known as “full employment.” The U.S. economy added 216,000 jobs in April, notching a record 103 straight months of job gains and signaling that the current economic expansion shows little sign of stalling. The Labor Department reported in July that the unemployment rate fell to 3.6 percent, the lowest since 1969.

What we should glean from those statistics is that the war for talent continues unabated across U.S. businesses, making it even more challenging for leaders to build a staff with the highest quality workers. Becoming an employer of choice in your market is now a business imperative. Here are five ways to distinguish your facility:

1. Prioritize. With labor costs representing slightly more than half of operational costs at most facilities, making your course and club attractive to job seekers is a smart use of resources. Start by deciding the selection criteria for each position. Thinking through on-the-job performance standards helps to establish the search criteria for each position. This careful job description serves to focus the employer’s intentions and expectations. Detailed job description and criteria also clarify the opportunity for prospective employees, so they know going in what is expected of a successful candidate.

The process seems simple, but many employers fail to prioritize the time and thought process to describe what is needed from a specific position.

2. Organize. Employees want to know what will be expected of them in the job. An organized approach to describing the position makes sure employer and employee are on the same page, reducing surprises and establishing an understanding on key aspects of employment. Carefully organizing the position description signals that you know what you want and will keep searching until you find the best candidate.

3. Standardize. Your search process is a miniature branding effort. Using consistent and professional formatting, job and benefits descriptions and comprehensive summaries of expected annual income guide prospective employees to you. Remember, you’re not simply searching for someone to fill a

position – you’re searching for the best possible fit. Describe the culture of your team with words that demonstrate commitment and dedication. For most people, work is an emotional relationship before it is an economic consideration. In a December 2018 study of employees’ attitudes, Clutch, a B2B search firm, noted that “workplace values are essential to recruiting, retaining, and motivating quality employees.” In the same study, employees emphasized the importance of fair treatment and compensation alongside ethical treatment. While compensation is obviously important, how people feel about themselves in their jobs is even more valuable.

4. Recognize. To keep top performers, celebrate their successes. To many workers, the respect of their co-workers is highly important. Create a culture that recognizes the efforts and successful performance results of teammates. There are many examples of employee recognition successes, but most important is keeping the recognition fair, transparent and generous. Recognition will prove to be one of your best investments in time and money.

5. Evolution-ize. Create a recruitment and retention process that evolves with the workforce, your club and employees. Most staff members want to work where there is a fresh and invigorating environment. Traditions are extremely important and should be balanced with the need of employees to see change and growth in their jobs and lives. **GCI**



HENRY DELOZIER is a principal in the Global Golf Advisors consultancy. He is currently Chairman of the Board of Directors of Audubon International.

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HEALTHY TURF IN A HILLY HOME

Eric Materkowski's path to maintaining elite playing surfaces at a Pittsburgh gem rolled through the region he once wanted to leave.

By Guy Cipriano

Western Pennsylvania or Arizona? Eric Materkowski received a glimpse of the desert and a booming golf community, and he figured a stint as an intern at Ventana Canyon in Tucson represented a prelude to a sunny future.

Out with hills, winter and tight, paved roads. In with mountains, year-round golf and off-road Jeep excursions.

On his way to desert permanency in the mid-1990s, Materkowski returned to his Indiana, Pa., home and spent one evening walking around Indiana Country Club

Eric Materkowski is in his sixth season at St. Clair Country Club.

© BAYER



the small-town private course that sparked his interest in turfgrass management. Materkowski spotted the club's new superintendent, Mark Leppert, spraying *Poa annua* surfaces with assistant superintendent Tobin Ross. Introductions were made, conversations commenced. Leppert offered Materkowski work.

A nice gesture. But Materkowski considered accepting the offer impractical because of tasks he needed to juggle before returning to Wooster, Ohio, to complete his Ohio State ATI requirements. "Mark hired me anyway," Materkowski says.

Western Pennsylvania or Arizona? Materkowski finished school and contemplated a return to Ventana Canyon. Uncertainty about the position he would be filling led to Materkowski asking Leppert for guidance. Leppert suggested Materkowski join the Indiana CC team as an assistant until the situation in Arizona settled.

Something unexpected then happened on Materkowski's journey to warm-weather turf. He noticed a GCSAA advertisement for the superintendent job at Armco Golf Club, a steel company-owned course 50 miles north of Pittsburgh. Materkowski applied for the job, nailed an interview and landed the position. He was 24. He was a head superintendent at a private club. He wasn't returning to Arizona.

Seven memorable years at Armco and two other head superintendent stops at Pittsburgh-area clubs later, Materkowski has developed into an advocate and resource for colleagues in a competitive private club market. The region's members like their *Poa annua* greens to be as slick and smooth as the ice Pittsburgh Penguins star Sidney Crosby glides on.

Unlike a climate-controlled NHL rink, though, a golf course, is a perplexing, evolving and enthralling ecosystem. Materkowski has ascended to the superintendent position at 103-year-old St. Clair Country Club, a flourishing 27-hole, 265-acre facility in the city's South Hills. The suburban neighborhood surrounding the course is appropriately named. St. Clair features uphill and downhill shots and views wherever a golf can possibly land. The terrain provides varied playing experiences even for a membership that spans generations. It also produces daily maintenance conundrums.

"If you talk about Pittsburgh golf, you can't understate topography," Materkowski says. "When you're dry, your high points are dry. When you're wet, your low points are wet. That gives you microclimates on a micro, micro level."

A Pittsburgh summer can flip from wet to dry, or dry to wet, almost as fast as

Crosby can skate from blue line to blue line, leaving intensely managed turf vulnerable to myriad disease, including anthracnose, dollar spot, brown patch and Pythium. St. Clair receives few respites in June, July and August. Member play can exceed 150 rounds on a busy summer day and the club attracts Monday afternoon outings because of its sterling reputation and elite conditions.

Satisfying ball roll demands requires a relentless maintenance regime. Greens are maintained at around 1/10th of an inch. The height of cut isn't much different than what Materkowski used at previous stops, but the stresses placed on greens have never been higher. The St. Clair team mows and rolls daily during the peak season. Materkowski calls St. Clair's fertility and water management programs "leanish," with soil moisture meter readings determining irrigation decisions. Growth regu-

lators keep greens in fast-putting condition longer, although Materkowski says the slower recovery rates add "another layer of stress." Frequent sand topdressing, opens additional wounds and bruises on greens.

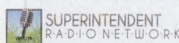
At a high-end club such as St.

Clair, other playing surfaces are nearly managed to the same levels. Fairways are mowed six days per week, and Materkowski has added fairway rolling to the routine.

Twenty-four years as a head superintendent – Materkowski spent 10 years at Wildwood Country Club, a private facility in Pittsburgh's North Hills, before accepting the St. Clair job in 2013 – means Materkowski handles biotic and abiotic stresses with a resolve that permeates among a 35-worker crew. The bulk of his agronomic program at St. Clair stems from what proved successful at Wildwood. Materkowski and a key member of his team, assistant superintendent Martin Albright, worked together at Wildwood.

The way Materkowski sees the industry, people are the most important tool for helping a superintendent handle turf stress and disease. His network includes numerous confidants, including Bayer area sales manager Darrin Batisky. Materkowski and Batisky met in 2001 when Batisky accepted a superintendent job at a Pittsburgh-area private club. The relationship has led to Materkowski incorporating versatile products designed to prevent biotic and limit abiotic stress into St. Clair's program.

"First of all, people like Darrin know their products better than anybody," Materkowski says. "In addition to that, they see what's working and what's not working. They talk to



In his words

Eric Materkowski joined Superintendent Radio Network to discuss how his team maintains high-level playing conditions at St. Clair Country Club. Enter bit.ly/2ObXER3 into your web browser to hear the podcast.



From the field

Bayer area sales manager

Darrin Batisky, who works with superintendents in Pittsburgh, western New York and parts of West Virginia, uses a line from a former superintendent colleague to describe the challenges of *Poa annua* in the summer. "He would say, 'If I look at this *Poa* wrong, it will die,'" Batisky says.

Keeping the *Poa* alive and thriving requires proactive management strategies. "It's the old adage that an ounce of prevention is worth a pound of cure," Batisky says. "We get into situations such as the one last year we had with summer patch. You had people who didn't do any preventative and then you can't cure it. You're just chasing it. That prevention and being timely with prevention are key."

a lot of people and they can save you some heartache and disease by sharing with you something that has been more successful than something else."

Knowing Materkowski was seeking a multi-use SDHI to treat fairways after an effective product left the market, Batisky introduced Materkowski to Ex-

a full-fairway application. "We had continued success and good results," he says. "At that point it goes in the toolbox."

Corporate and personal trust allow Batisky to help superintendents handle situations such as the one Materkowski faced with limited-use SDHI products on fairways. "The Bayer brand transcends me," Batisky says. "With a brand strength like that, people are willing to try something because they know it's been tested and they know our formulations work. We're not going to lead them astray."

"Bayer is my employer, but I feel my brand is also strong with being a superintendent and being in the in-

Batisky and applications of proven solutions help Materkowski when he needs the most support – late July and early August.

"The turf is worn out, the roots are shrinking, it's had every disease and insect thrown at it, it's had a lot of traffic, and growing conditions aren't great," Materkowski says. "That's where Stressgard products come in. It's the help from Stressgard that helps you get across the finish line. I take a vitamin every morning. I don't know if I need it or not, but it's so easy to throw a vitamin in my mouth every morning. That's one of the things you get from Stressgard. It's just moving the dial a little bit further from the stress."

Pittsburgh summers – and winters – contrast anything Materkowski would have experienced in Arizona, where the daily, weekly, monthly and annual weather is more predictable. But lasting memories, including living with his wife, Cara, and newborn son, Ian, on the second floor of the Armco clubhouse are a result of staying close to home. Now 18 and a recent high school graduate, Ian is part of the St. Clair crew. Materkowski and Cara also have a 16-year-old daughter, Zoe. The family has settled nicely in the South Hills.

Staying in western Pennsylvania also allowed Materkowski to establish a giant extended family. Materkowski proudly admits most of his close friends are associated with the industry and he relishes opportunities to talk turf with anybody willing to listen.

"The whole industry is like a job and hobby if you do it right," he says. "You won't explain it to your family, you won't explain it to your friends. Nobody will understand your job. But you can't let that be important to you. If you love it, and wake up and find being on a golf course super rewarding, then you're in the right field." **GCI**



▲ Bayer's Darrin Batisky and Paul Giordano are key parts of Eric Materkowski's professional network for turf stress and disease control.

teris Stressgard, which combines fluopyram, a next-generation SDHI active ingredient, with the QoL trifloxystrobin. Batisky encouraged Materkowski to initially apply Exteris on six acres of championship course fairways, a large enough playing surface to compare it to the product Materkowski was spraying at the time. Materkowski tweaked rates and observed the turf's response. The results convinced him to make

dustry for 30-some years. That helps. I still have to eat, breathe and wake up every morning and maintain that brand of my own. I try to be practical and be somebody who they can rely on. Just dropping off a 2 ½-gallon jug doesn't help people sometimes."

Stressgard products are a staple of St. Clair's program, with Signature Xtra, Mirage, Fiata, Interface and Tartan also being applied on a variety of surfaces. The relationship with

Understanding Phosphonates



By Paul Giordano, Ph.D.
Bayer Green Solutions Team

Many different phosphorous acid-based products (phosphonates) exist in the turf market today. While many have similar disease control claims, key differences exist when it comes to the formulation and plant health benefits delivered by these various products. Below is a review of phosphonates including considerations when selecting a phosphonate for use on putting greens.

A Little Bit About Phosphonates

- // **How do Phosphonates Work?** Foliar uptake of PO_3 (rather than the fertilizer form of PO_4) sends a stress signal through the plant and results in production of higher levels of antimicrobial compounds which deter or slow infection. This is known as Systemic Acquired Resistance (SAR).
- // **SAR is Not Free** – there is an energy cost to the plant with each application of a phosphonate.
- // **Target Diseases with Phosphonates** – Primarily pythium and anthracnose.

Why So Salty?

- // **Phosphonic acid is formed** when phosphorous acid is mixed with water. This strong acid must be combined with other chemicals to safely use on turf surfaces.
- // **Phosphonic acid neutralized** with an alkali salt (potassium hydroxide) forms potassium phosphite – the active ingredient in most turf phosphites including Fiata® Stressgard® and Appear®.
- // **Phosphonic acid reacted** with ethanol forms ethylphosphonate, neutralized with aluminum ions creates Fosetyl-Aluminum (Fosetyl-Al) – the active ingredient in Signature™ XTRA Stressgard and Chipco® Signature.
- // **Differences in stabilization** of the fosetyl-Al equates to more phosphites per molecule and less likelihood for plant injury with reduced salt concentration compared to potassium phosphites. More phosphites per molecule also equates to improved disease control.

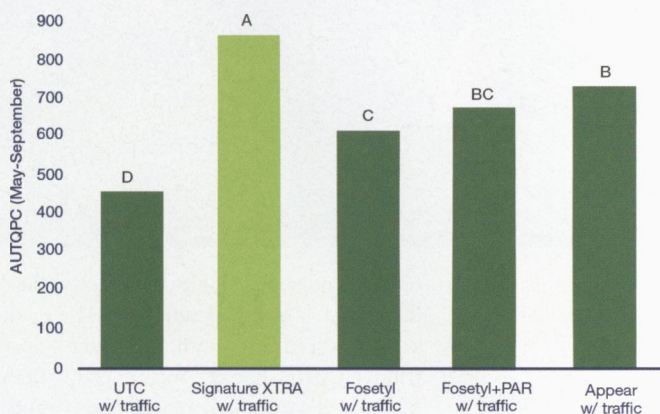
Is It Hot in Here?

- // **Some phosphonates** have been shown to enhance certain physiological processes and improve root growth in turfgrass grown in stressful environments.
- // **The proprietary formulation** in Signature XTRA Stressgard, Chipco Signature, and Fiata Stressgard has been shown to increase chlorophyll resulting in enhanced photosynthesis. This helps make up for the increased energy cost for SAR.
- // **Fosetyl-Al in the form** of Signature XTRA Stressgard or Chipco Signature is widely researched and has shown to optimize plant health and mitigate common abiotic stresses like heat, drought, and traffic.
- // **Many other potassium phosphites** can cause tip burn or phytotoxicity and often have restrictive label language regarding applications in severe weather or on stressed turf.

Formulation Matters

- // **The safety and benefits** of phosphonates on turf are often dependent on the formulation of the product.
- // **Chipco Signature** was the pioneer in this area with over 25 years of research and on-course benefits of mitigating heat, drought, shade, and traffic stress.
- // **Other phosphites alone** or combined with pigments have not consistently performed to the standard of Chipco Signature or Signature XTRA Stressgard (see research example below).

Turf Quality Under Traffic Stress



2018 Traffic Stress Trial – Dr. Jim Murphy, Rutgers University

Turf quality under traffic stress – Trial conducted by Dr. Jim Murphy at Rutgers University. Traffic stress induced via mechanical foot traffic simulator 6 days per week from June-September. All products were applied at commensurate labeled rates on a 14-day schedule throughout the duration of the trial.

Need more info? For additional guidance, contact your Bayer Area Sales Manager or learn more at es.bayer.us/signature-xtra.



Extraordinary is Your New Ordinary



Eric Materkowski
*Golf Course Superintendent,
St. Clair Country Club*

Ian Materkowski
Son



Stressgard[®]

When you can count on your turf to be at its best, others can count on you to be at yours.

Your golfers want a greener course. You want a little more time in your day. Stressgard goes beyond disease control to deliver both – allowing you to maximize your potential on and off the golf course. So whether that means finding time to be a better Superintendent, or start coaching your replacement – Stressgard delivers.

For turf you and your golfers can count on in conditions you can't, look to Stressgard.

See the science behind the extraordinary at es.bayer.us/stressgard

ALWAYS READ AND FOLLOW LABEL INSTRUCTIONS

Bayer Environmental Science, a Division of Bayer CropScience LP, 5000 CentreGreen Way, Suite 400, Cary, NC 27513. For additional product information, call toll-free 1-800-331-2867, environmentalscience.bayer.us. Not all products are registered in all states. Bayer, the Bayer Cross, Stressgard, Fiata and Chipco are registered trademarks of Bayer. Signature is a trademark of Bayer. Appea is a registered trademark of Syngenta.

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The fifth hole of the Tortuga course at neighboring La Cana Golf Club escaped the hurricanes, but not every hole was so lucky.

BATTERED, NOW BETTER

HURRICANES IRMA AND MARIA DAMAGED CORALES GOLF CLUB. DETERMINED SUPERINTENDENT JULIO DÍAZ AND HIS CREW PREPPED THE COURSE FOR ITS FIRST PGA TOUR EVENT SIX MONTHS LATER.

By **Matt LaWell**

The first storm ripped apart the course on a Thursday.

Winds whipped, faster and faster, and sand shuffled out from the bunkers. Rocks surged up onto the greens from the ocean below. Everything that had remained outdoors rather than shuttled into the relative safety of the clubhouse had found a new location across acres of disruption.

Hurricane Irma was not the first storm to touch down on Corales Golf Club in the Dominican resort haven of Punta Cana — though it was the first during the tumultuous hurricane season of 2017. “The people here are very used to hurricanes,” says Julio Díaz, the veteran superintendent for both Corales and its 27-hole neighbor, La Cana. “Hurricane season comes and we worry about a lot, but we



"Hurricane season comes and we worry about a lot, but we get so used to them coming, we say, 'Oh, we can manage a hurricane.'"

— Superintendent Julio Díaz

▲ A native of Azua, D.R., Julio Díaz has been back for almost 20 years after working at Long Island clubs and studying at Rutgers.

get so used to them coming, we say, 'Oh, we can manage a hurricane.'" But Irma, a Category 5 hurricane whose sustained winds eventually reached 180 mph and resulted in 134 deaths and more than \$77 billion in damages across the Caribbean and the southeastern United States, was "a disaster," he says.

Díaz hunkered down for a night, then emerged the next day, along with the 120 other members of his crew and the thousands of Punta-cana Resort & Club employees, to repair their oasis on the eastern tip of Hispaniola. Work started almost immediately to reshape the battered course, to build up from one meter to two the crucial seawall that protected a sextet of oceanside holes, to prepare Corales for its transition from what was then the Web.com Tour to its first PGA Tour event.

And then, on another Thursday, after less than two weeks of focused, frenzied work, the second storm hit.

THE DOMINICAN REPUBLIC is not particularly large — its almost 11 million residents are scattered around a country about half the size of Indiana and the island of Hispaniola is a little smaller than Maine — and neither is its number of courses. When Díaz was born 54 years ago in Azua, that number was

still zero. When he was working on his family's 75-acre farm, growing various vegetables and fruits, including cantaloupes, bananas and corn, that number could still be counted on one hand. And after earning his undergraduate degree in agriculture, there were so few courses in the country that he headed north to New York for the next decade.

Díaz worked at Wind Watch Golf & Country Club in Hauppauge and North Shore Country Club in Glen Head, both on golf-heavy Long Island, and earned his turf degree from Rutgers University, fitting a couple winters worth of classes around his course schedule. He had no plans to leave — not after diving into a renovation project as a North Shore assistant, and especially not after he and his wife, Ana, a native Dominican who moved to New York during her childhood, welcomed a son and then a daughter.

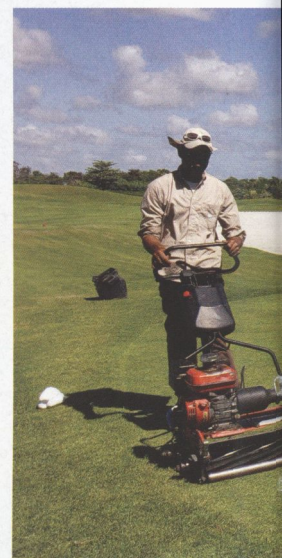
But an old Rutgers friend called him and let him know that a resort down in the Dominican planned to open a course and was searching for a superintendent. A pair of phone interviews sparked a flight, which sparked a walk on the property that is now La Cana, which was designed by P.B. Dye and opened in 2001. At the end of that walk, Díaz says, he received a job offer.

"I went back, I discussed it with my wife, and we agreed, 'Yeah, let's go back to the Dominican Republic for two years,'" he says. "We can finish the grow-in, put all the maintenance programs in order, put together a good team to manage the course, then go back to New York."

They have now been back in the Dominican Republic for 18 years and counting.

"I finished the construction on La Cana," Díaz says, "then we built a soccer field and a baseball field in the village. We built a grass tennis court, a turf nursery. Then we built a polo field. We're having fun, it's been really fun."

Corales opened in 2010 after Díaz and a small team worked with designer Tom Fazio to transform 350 acres of what had been thick jungle when Dominican entrepreneur Don Frank Rainieri and New York attorney Theodore Kheel snagged the land in 1969. "Don Frank wanted the



biggest and the best,” Corales club pro Jay Overton says, “and this site was always going to be his big golf course.”

Some of the figures and facts about Corales are astonishing. There are the 3,174 sprinkler heads and 200 acres of maintained grass — down from 236 a few years ago thanks to conservation efforts. There are the 17 acres of land on both the 12th and 13th holes — “Big damn holes,” Overton says. “You could land a 757 on there” — and the roughly 13,000 square foot minimum for new homes constructed along the course. And while Augusta National Golf Club is home to Amen Corner, Corales closes out with a trio of holes collectively called El Codo del Diablo — the Devil’s Elbow.

Díaz has provided a constant for the resort and for Corales. He is the only superintendent who has worked on the courses, and he knows every corner, every challenge. Hurricanes Irma and Maria provided him with

the biggest challenge of his career.

Díaz and the course committee had started work after Irma passed over the island, then reassessed after Maria followed two weeks later. “Everybody started working on the road, on the common areas on the golf course, bringing in equipment the next day,” he says. Díaz relied on the company’s significant infrastructure — in addition to owning and operating Corales and La Cana, a handful of hotels and residential communities, and a host of restaurants and businesses, Puntacana Resort & Club also owns the Punta Cana International Airport and all the equipment used there — and opted to rebuild Corales largely in-house.

“Irma did all the damage,” Díaz says. “Took part of the middle of 18, pulled up a lot of rock, took most of the tee on 9, about 90 percent of 8, and part of 7. We started cleaning, pushing material, just cleaning for 15 days.” And

then Maria followed. “We already had a section of the seawall framed and the concrete poured. And then the second hurricane came in and cleaned everything. Took whatever we had left on the green, left a lot of damage on 18, took everything on 9, everything on 8, and part of the green on 7. I mean, nothing left. Just the rock. Nothing.

“All the cleaning we did, all the material we pulled, everything was just gone.”

With the course’s first PGA Tour event fast approaching — the tournament was scheduled for March 19-25, less than six months out — Rainieri talked with Díaz about adjusting the timeline of the reconstruction. “I remember Don Frank asked me, ‘Julio, give me the new date when we might finish the project,’” Díaz says. “I told him, ‘Look, we keep the same date. We will double the effort.’”

Hurricane Maria killed an estimated 3,059 people, most of them in nearby Puerto Rico, and caused more than \$91 billion in damages. Two more hurricanes and two other tropical storms traveled through the Atlantic that season, but none approached the same fury as their predecessors. As work on the course progressed, Díaz says, the only thing that might have delayed the scheduled would have been a third hurri-

▲ Waves crash against the 2-meter-high seawall at Corales Golf Club, which hosted its second annual PGA Tour event in March.

◀ The day starts at 6:30 a.m. for a crew of about 120 split between Corales, La Cana and the resort’s polo fields.





▲ The fifth hole of the Hacienda course is one of 27 normally available to play at La Cana and one of 45 at the resort.

cane that, thankfully, never arrived.

Díaz designed a new irrigation plan and Fazio Design senior design associate Tom Marzolf sketched new greens during his time on site. Barges filled with equipment floated south from Florida. Shapers arrived from Mexico. Trucks hauled in so many loads of soil and sand. The turf nursery added back in 2005 provided invaluable sustenance. Teams worked in shifts seven days a week to pour everything into rebuilding and improving.

“Our goal was to finish planting everything for December, because we don’t want to miss the high season” Díaz says. “And even in December, we have a local tournament that we host. Even with those greens not ready, we would have been able to play on it really well. So, we started working, pushing, pushing. We had a lot of people working here.”

The course opened Dec. 11, after less than 12 weeks of work. A little later, Brice Garrett finished 18 under to win the first Corales Puntacana Resort and Club Championship March 25.

“That first PGA tournament was hard, but nothing like before,” Díaz says. “Because before, we were

working to get the course approved. ‘We are having this event. We need to have this event, and we need it to be good, and we are working against all the elements.’ When we opened in December, we said, ‘Oh, we can get it. It won’t be perfect, but we can get it done.’ And some of the people didn’t even notice.

“The two weeks in advance of the tournament were intense, but we were coming from the two hurricanes, and we survived.”

Díaz says he thinks Corales, La Cana and the various fields around the resort’s 15,000 acres can always be better. Even after removing almost 40 acres of grass, for example, he is still searching for areas to pare away and replace with more natural rough. He could always use less water, he says, even though he already exclusively uses reclaimed water across the property. The course closes for two weeks every July, then again for most of September, when the crew dives deep into aerification and other heavy projects. Díaz tinkers all the while.

“I think we can always do more,” he says. “When you reach what you think is your highest point, you can always do more.”

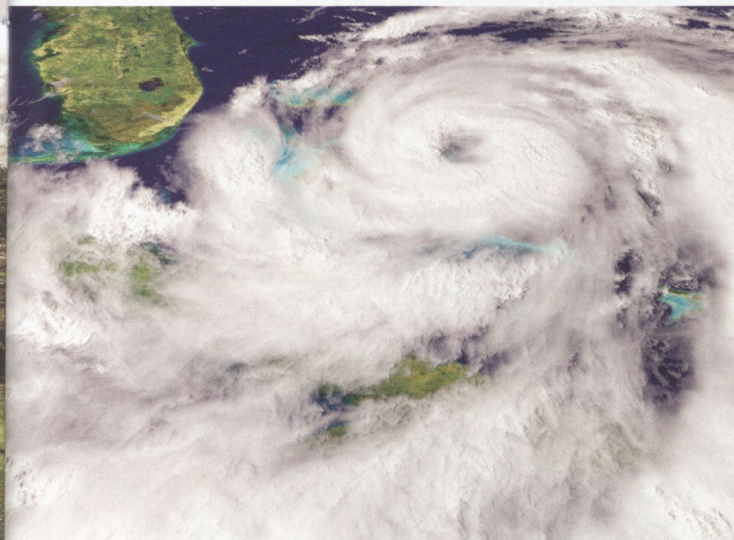
DÍAZ PLANNED TO WORK two years at Puntacana and then return to the United States. He is approaching two decades on the island and has no plans to retire anywhere else.

“When you start working here every day, you get so busy there’s no time,” Díaz says. “Someone tells you about a job: ‘No, no, not now.’ You want to stay all the time. Now, I am 54. I keep saying around my house that I will work until I’m 62, 65. ... If we get 30 years here, that would be big.”

He is standing on the eighth green, obliterated by Maria two years ago and now better than before. A brimmed hat covers his eyes. “I like going to 2,” he says, “and the back of 3, of 5. I go there a lot. I walk a lot on the course. When you are here every day, you don’t pay attention. The ocean is right there,” he says, turning his head and pointing an index finger to water crashing a chip shot away, “but I’m working.” He pauses.

“After the hurricanes, we came out much better.” He pauses again. “Look at that color.” The water is a Crayola blend of green and blue and sunshine, its tints shifting with every wave. It doesn’t look real.

“How do you even describe that color?” **GCI**



ARE YOU PREPARED?

When Hurricane Barry made landfall on the Louisiana coast last month, I was reminded of my first encounter with a natural disaster as a golf course superintendent. We are still a month away from the peak of hurricane season, and the past few years have seen some major storm damage along the coasts of North and South Carolina, Georgia, Florida and Texas.

Over the course of my career, I've endured one hurricane and multiple tropical storms. I am by no means an expert on how to handle these situations, and, quite frankly, each occurrence I've considered the results to be fortunate compared to what might have been. But I do think there is a shred of truth to making your own luck. And, if I learned one thing in my youth as a Cub Scout, it was be prepared.

In 2003, I was responsible for the Bob Cupp-designed Swan Point Yacht & Country Club on the banks of the Potomac River in Issue, Md. Growing up in the foothills of the Appalachians in Castlewood, Va., I can attest I wasn't familiar with the power of such storms. Still, I occasionally look back and recall how we prepared for Hurricane Isabel's arrival when faced with similar adversity.

A year ago, Hurricane Florence made landfall along the North Carolina coast, then turned herself around and headed for Charlotte. By the time the storm made it this far inland, she was downgraded to a tropical storm, but I prepared for the storm and its potential impacts like it was still a hurricane. We were about to co-host the 2018 U.S. Mid-Am Championship and important decisions had to be made – quickly.

Tropical storms and hurricanes are no strangers to the Carolina

coastlines. As a result, the Carolinas GCSA has information readily available on our website. You will find two links, one titled HURRICANE PREPAREDNESS and the other Hurricane Prep List, located in the center near the bottom of our homepage.

HURRICANE PREPAREDNESS contains information regarding evacuation routes, links to FEMA, the Small Business Administration and GCSAA's Disaster Relief Fund. There is also a wonderful compilation of turf management tips from Clemson and NC State professors to assist you with turf and pest issues you may encounter once the storm has passed.

Hurricane Prep List is a collection of things to do before, during and after the storm to help you and your course survive the elements to the best of your ability. It includes everything from readying your chainsaws to making sure you empty the breakroom fridge prior to the storm's arrival.

When Hurricane Isabel approached in 2003, this first-timer made sure of three things:

1. I remained calm. Although I was nervous and anxious about what may happen, I made sure to do my best to not outwardly show anxiety to my team. Your team looks to you to gauge the situation, and if you're anxious they will sense and emulate your feelings.

2. We prepared for the worst. We removed everything loose from the golf course (trash receptacles, flagsticks, benches, etc.), topped off every piece of equipment with fuel, stock-

piled fuel in containers, sharpened all chainsaws and moved them to a safe place.

3. We hoped for the best. Once we felt the course was ready, I sent everyone home so they could prepare. Although it's important to prepare the golf course, equipment, turf care center and other parts of your operation for what's about to happen, it's more important to provide your crew the opportunity to do the same for their homes and families.

Last year, as Tropical Storm Florence approached the Queen City, my team immediately sprang into action, applying plant growth regulator to greens, tees and fairways, and topdressing greens. Our biggest concern with Florence was the amount of potential rain prior to our major championship.

I've heard before you can't control a golf course, but you can encourage it. Our efforts and inputs were all about encouraging the golf course to come out the back end of the storm in the best possible condition. I dismissed everyone prior to the storm so they could arrive home safely and prepare things at home.

I'm always heartbroken when I see the impacts and damages experienced by my peers in these situations. Sometimes even the best of preparations cannot overcome the power of Mother Nature. But the resiliency of mankind, and especially golf course superintendents, always shines like a beacon in the night in these situations. It's inspiring to see what we can overcome. **GCI**



MATTHEW WHARTON, CGCS, MG, is the superintendent at Carolina Golf Club in Charlotte, N.C., and President of the Carolinas GCSA. Follow him on Twitter @CGCGreenkeeper.

Meet
the Industry's

Mr. WEATHER



Blending passions and leveraging connections allowed **Herb Stevens** to create a business designed to help superintendents better strategize for what lurks above.

By **Guy Cipriano**

Herb Stevens often looks up on a golf course to help the people whose careers depend on the condition of the ground.

Stevens is a professional meteorologist with varied career and golf experiences. When The Weather Channel launched in 1982, he made the second on-camera appearance, following Bruce Edwards' inaugural 30-minute segment.

Stevens, coincidentally, left the upstart network because of weather. "I couldn't stand the heat of Atlanta," he says. "I was a Yankee out of my element."

The Rhode Island native relocated to Albany, N.Y., to become the chief meteorologist for a local television station. He started doing ski reports and developed a large enough following to launch a syndicated service as the "Skiing Weatherman."

His current professional pursuit involves assisting golf course superintendents. Stevens launched Grass Roots Weather in the mid-2000s and he provides personalized short- and long-term forecasts to superintendents and managers at close to 100 courses. His client list, which can be found at www.grassrootswx.com, spans a triangle-shaped region from Maine to Charlotte to Chicago and includes numerous high-profile clubs.

ER

Former PGA Tour caddie and Weather Channel meteorologist Herb Stevens is the founder of Grass Roots Weather.

A superintendent steered Stevens toward using his meteorological background to create Grass Roots Weather. A former PGA caddie who worked for World Golf Hall of Famer Larry Nelson from 1975 to 1980, Stevens played famed Winged Foot Golf Club with a friend in 2003. Stevens mentioned to his friend how his home club, Potowomut Golf Club in East Greenwich, R.I., was struggling with anthracnose. "It wiped out a couple of greens and it was really a bad situation," Stevens says. "I believe we had four superintendents in a span of a year. That might be in the 'Guinness Book of World Records.' There were management issues and there were turf issues."

The friend described how Winged Foot's then-superintendent Eric Greytok belonged to a lineage of ultra-successful private club turf managers groomed by Paul R. Lathsaw. Later in the year, the Potowomut superintendent job reopened and Stevens used his Winged Foot connection to provide his home club with a list of qualified candidates. Potowomut hired rising Oakmont Country Club assistant superintendent Brent Palich and Stevens became the club's green chairman. The pair worked together for 18 months until Palich received the head turf job at Sand Ridge Club, a private facility closer to his northeast Ohio home.

Palich taught Stevens about the intricacies of turfgrass management; Stevens provided Palich with customized weather information to make targeted agronomic decisions. In his closing act at Potowomut, Palich nudged Stevens to offer a forecasting service for superintendents and clubs.

"The day he left Rhode Island in 2005, he said, 'Mr. Stevens, why don't you do for other guys what you do for me, because you saved me a hell of a lot of money with your forecasts?'" Stevens says. "It's like a bank of lights at Gillette Stadium went off. 'Wow. That's a great idea. And it would dovetail in with the ski season very nicely.' So it was Brent Palich and his idea that was the genesis of the business I still do to this day. Working with as many golf courses as I do, I have become acutely aware of challenges superintendents face. It's an education I cherish."

From caddying on the PGA Tour as a high schooler for Accuform rake creator Ben Kern to helping save superintendents' jobs, Stevens, a Penn State graduate, represents one of the few self-employed people in the industry who has blended his academic training with a lifelong recreational passion. He still plays golf three times per week and

carries his phone to the course to honor a commitment of providing accessibility to clients. And yes, he can't help but look skyward when playing. "I love the game," he says. "The search for perfection never stops with me. I'll never obtain it, but I love the search."

HOW FORTUNATE HAVE YOU BEEN TO BLEND YOUR GOLF AND METEOROLOGICAL PASSIONS?

It's more than that. I have been skiing since I have been a toddler. I have been abundantly blessed to combine not just one hobby, but two hobbies with my chosen profession – and I'm self-employed. There are very few people that I know anywhere who are as fortunate as I am in that regard. Self-employed is the way to go.

BUT YOU HAVE TO BE REALLY GOOD AT WHAT YOU DO TO BE SELF-EMPLOYED?

You have a point. If I don't do my job, my client list will shrink.

WHAT WERE YOUR EARLY DAYS LIKE AND HOW DID YOU BECOME A METEOROLOGIST?

The meteorology part stems from one incident. This is not unusual among people I know in my profession. But in 1960, when I was 7 years old, I lived in Rhode Island where I live now, and we lived very close to the shores of Narragansett Bay. We faced the eye of Hurricane Donna, which was a formidable storm, not only here in New England, but throughout the entire length of the East Coast. It was a heck of a storm. My parents took my sister and myself in the eye of the storm because it passed over our house. It was a pretty dramatic event. Even at the tender age of 7 it left an impression. That got me started, and I became a weather nerd. I made up my mind from the age of 10 years old that I wanted to become a meteorologist. I have met probably 400 or 500 meteorologists through the years. I don't know of

one who didn't know by the time they were 10 or 11 years old that was what they wanted to do.

WHAT WAS IT LIKE GROWING UP IN RHODE ISLAND? NOT A LOT OF PEOPLE UNDERSTAND IT'S A GREAT GOLF STATE.

I started caddying at Warwick Country Club on Narragansett Bay. It's a beautiful piece of property. Donald Ross had his hand in some of the early architecture there. Donald Ross has left a lot of fingerprints in the state. He would spend his summers in Little Compton, Rhode Island. He would spend his winters in Pinehurst and then come up here for the summertime. All of the old clubs in Rhode Island are at least in part Donald Ross courses and a place like Wannamoisett hasn't changed that much from what he originally laid out. We had a good selection of golf courses, and for a young golf mind I got to experience them either playing or caddying. I really enjoyed my youth here. It really didn't last that long. I caddied when I was 11, 12, 13, 14 on a local basis at the same club. Then I started caddying in women's amateur tournaments in southern New England. There were people like Jane Blalock and Pat Bradley in those

of becoming a television meteorologist. Television is not unlike professional sports. There aren't a lot of 27-year-old rookies floating around, so I thought I better get with it. Larry and I went our separate ways. He won three majors and I carved out a television career. It worked out well for the both of us. I started in Providence in 1981. A friend I worked with at AccuWeather called me up and said there's a network starting that was strictly weather. I thought, 'Now, I'm 28 and I need some reps if I want to accelerate my career.' And The Weather Channel was going to give me reps. I would get five or six half-hour segments a day. I applied to work at The Weather Channel and became one of the original on-camera meteorologists.

HOW DOES THE SKI INDUSTRY COMPARE TO THE GOLF INDUSTRY?

They both have similar challenges regarding the expense of the sports and the difficulty of the sports.

Both sports have had issues with retention of participants. They have been able to get people to come into the door, but too many of them go out the back door. Skiing, to its credit through the advent of shaped skis about

20 years ago, has made learning the sport a lot easier than it was more than 20 years ago when skis didn't have the parabolic side cut that make it so much easier to turn a ski. But the competition in skiing came from snowboarding as that developed. At least in snowboard-



ing people were on the snow and spending money.

WHAT'S THE NO. 1 THING A SUPERINTENDENT DOESN'T UNDERSTAND ABOUT WEATHER?

This is going to sound self-serving, but this is a fact. They don't understand how bad the point-and-click forecasts are. All point-and-click services come from one spot. It was a computer model developed by the National Weather Service. It has some inherent flaws in the underlying physics that make it very difficult for that model to perform well. When I look at a prospective client, I say, 'Look, I can give you a forecast for two or three weeks down the road that you can't get from your app.' I can say that with a great deal of confidence. That's the one thing they don't realize – how bad those apps are. And they all come from the same place. It doesn't matter what site you go to. When you plug in your zip code and get those pretty little icons, you're basically on a road that has a cliff at the end.

WHAT OTHER WEATHER MISCONCEPTIONS EXIST AMONG



When I look at a prospective client, I say, 'Look, I can give you a forecast for two or three weeks down the road that you can't get from your app.' I can say that with a great deal of confidence. That's the one thing they don't realize – how bad those apps are."

tournaments. It was high-level golf. I went from there to the PGA Tour and never looked back.

WHY DID YOU LEAVE CADDYING?

At the end of the 1980 season, I was 27 and still wanted to obtain my goal



SUPERINTENDENTS?

When they live by a body of water, whether it's a Great Lake or the Atlantic Ocean, sometimes they don't fully understand the influences that body of water will have not only on a daily basis, but on a seasonal or even an annual basis. We saw a great example of that last year. The sea surface temperatures from Cape Hatteras all the way up to the Maritime were considerably warmer than normal. The whole Atlantic wasn't like that, it was just a large pool of anomalous warm water tucked in against the North American continent. It manifested itself in so many different ways. Warmer air holds more water vapor and water vapor is an enemy of the superintendent in the summertime. Certainly, you want rain. You want to limit the amount of time that you irrigate. But to wake up every morning and there's dew on the grass or there's fog and the fog burns off and the moisture that's available helps pop up a storm ... the turf gets wet again at the end of the day and it stays wet overnight. The fog then forms again. It's a vicious circle and a lot of that was enhanced last year by that warm water. It cost a lot of hard-working, talented superintendents their jobs because there were people in positions of power that don't have a scientific bone in their body saying, 'You have a degree. You can grow grass.' Well, that water was so warm and those feedback mechanisms were so persistent last year that there were places that you couldn't grow grass. You couldn't keep it alive.

A BIG PART OF CADDYING, ESPECIALLY AT THE ELITE LEVELS, IS GIVING SOMEBODY INFORMATION. HOW IMPORTANT IS METEOROLOGICAL INFORMATION TO THE WORK OF A GOLF COURSE SUPERINTENDENT?

I would imagine if they didn't have

It's a vicious circle and a lot of that was enhanced last year by that warm water. It cost a lot of hard-working, talented superintendents their jobs because there were people in positions of power that don't have a scientific bone in their body saying, 'You have a degree. You can grow grass.'"

any weather information trying to do their job would be like trying to win the lottery. The feedback I have received through the years is that the strength of what I do is to provide the superintendent with the ability to put together a strategy in times of stress. The strength of what I do forecasting-wise is to look two or three weeks down the road. With the longer-range forecasts, I'm just passing along what I have known through the years. I don't want to wander into an area that's not my expertise. But it helps them when they are dealing with a green chairman and they want to explain, 'Sir, we have some very stressful weather coming in the form of heat and humidity. I recommend that we raise the height of cut. I also recommend that we don't do any topdressing at this time because of the heat stresses.' Strategic decisions like that can be made based on an effective longer-range forecast. As far as fungicides, people put out products that need dry intervals. I get phone calls, emails and texts all the time saying, 'I want to put this product out tomorrow. Do I have a three- or four-hour dry

interval on the backside before any showers or thunderstorms?' That's a sort of question I answer all the time. There are a whole array of questions that I am challenged to answer. I love the challenge. I love my job.

WHAT CAN A SUPERINTENDENT WHO WANTS TO IMPROVE THEIR UNDERSTANDING OF WEATHER DO TO LEARN MORE ABOUT IT?

I recommend they go online and, in the rudimentary sense, find what I used to do as a young man, which is a cloud chart. You can probably find videos looking at cloud types and what sort of weather they foretell. The clouds tell you a lot. They tell you what's happening before you feel it at the surface and they give you some great hints on what to expect later that day and the next day.

YOU HAVE WORKED WITH SOME OF THE BEST SUPERINTENDENTS IN THE COUNTRY. WHAT COMMONALITIES DO THEY SHARE?

They are tireless workers. The golf course comes first even before family, it seems to me, in times of stress. Somehow golf course superintendents have managed to weed out the jerks in their ranks. There are people that are difficult to deal with in all walks of life. Let's not kid ourselves. The superintendents I have worked with and met – and there are hundreds of hundreds of them now after all these years – are great people. They are fun to be around. They are humble because they know at any turn in the road Mother Nature can hand them their rear end on a platter no matter what precautions they take. I'm now 66 years old. I don't have many friends left who ski that are my age. I ski with superintendents, because the ski season here in the Northeast dovetails in with the golf season very nicely. They are just so much fun to be around. **GCI**



OUR MAJOR

AN INSIDE LOOK AT THE PEOPLE AND PRIDE ASSOCIATED WITH PREPARING FOR A COURSE'S BIG MOMENT

Part 2: Sparrows Point Member-Guest

By **Guy Cipriano**

Tyler Bloom paints, collects data, calls, answers and troubleshoots. Unless the task calls for two hands, he's also clutching his phone.

He raises his black hat throughout a mid-June morning, wiping sweat from a brow almost always pointed forward. A waterproof quarter-zip covers a golf shirt. The golf shirt is drenched by 9 a.m. Bloom's intensity rises as fast as the humidity. A Baltimore summer can be unforgiving and unrelenting.

Every time Bloom stops, he grabs a tool from the crowded bed of a utility vehicle. He takes five firmness readings from a green. He looks toward the vehicle and sees a pair of high school students on his Sparrows Point Country Club maintenance team raking bunkers. He chats with the students, neither of whom knew their way around a golf course, let

alone the 27-hole private club layout, a few months earlier.

Bloom lauds the duo and begins his next task, painting a red hazard line around a wayward stream. Red, yellow and white tournament marking paint, divot mix, black and white stakes, a hedge trimmer, a soil moisture meter, a device to take firmness readings and a granular product

to control weeds. Bloom uses nearly every tool in the utility vehicle before anybody sees a golfer.

The scene is duplicated throughout the summer: a superintendent and crew hustling to prepare a course for a big moment. For Bloom and his team, the annual Sparrows Point member-guest tournament offers an opportunity to make a major impression on members at a venerable club looking to dazzle guests. The week is packed with pressure and pride, because Bloom knows his team will partially be judged by the playability and presentation they provide over three days. "It's really special for us because we get to show former members and the people who come back how the course has been elevated," Bloom says.

Built by a steel juggernaut and preserved by passionate members, Sparrows Point resides in Dundalk, a middle-class neighborhood wedged between Baltimore and the Chesapeake Bay. The 272-acre property overlooks bay tributary Bear Creek, with the three nines retaining key



Patapsco High School student Charles Jones Jr. mows an approach during Sparrows Point Country Club member-guest week. **Top:** Superintendent Tyler Bloom paints hazard lines.

characteristics of architect William Gordon's original design. The club opened in 1954 and expanded to 27 holes in 1961.

Sparrows Point existed as one of Baltimore's more exclusive clubs for three decades. The rigid membership requirement involved working as a Bethlehem Steel executive. The company built and operated the club until changing markets and demographics resulted in the 1985 sale of the course to the membership. The industrial heritage dominates

club folklore. Golf enthusiasts from diverse backgrounds comprise the current membership.

"I tell a story often to describe our membership. One of my first years here, this guy comes into the golf shop and he's literally the dirtiest human being I have ever seen," says head golf professional Eric Brock, a club employee since 2002. "He was covered in soot and ash, walked up the clubhouse, took a shower, changed his clothes and was ready to golf. That's what our membership

is – it's hard-working."

The area surrounding the course has changed in the last three decades. The mill at Sparrows Point stopped producing steel in 2012 and an ambitious multimodal facility housing distribution centers for global companies such as Amazon and Under Armour now occupies the land. The club, though, has never stopped producing quality member-guest tournaments. "It's our chance to really shine and show members that if money wasn't a deterrent, we can



really put on an amazing everyday experience,” Brock says. “We get to roll all that into three days.”

At its peak, the mill employed more than 30,000 workers, including Al Medlin. The 72-year-old Medlin started working at the mill on June 15, 1966, just days after graduating from high school. Medlin says his classmates had a trio of quality career options, because Western Electric and General Motors also had a significant presence in the area.

Medlin chose Bethlehem Steel, where his father hung iron at the mill. Medlin spent his entire career at the mill, working a variety of indoor maintenance jobs.

He ascended to a supervisor position, although it didn’t include a club membership, and retired on Aug. 1, 1999. Golf has become a significant part of Medlin’s post-mill life, and four years ago, he joined the crew. Medlin executes detail-oriented tasks such as cleaning tee markers, edging tee boxes, emptying garbage and clearing debris from pavement. The job comes with golf privileges.

The mill provided a comfortable life – Medlin purchased a home, sent his daughters to college and retired in his early 50s – but a part-time job he secured in his late 60s represents his most pleasant work memories. “This is 100 times better than working in the plant, even in the winter,” he says. “In the plant, you have all that noise. Out here in the morning, it’s so quiet that you can almost hear your heartbeat. You see ducks, geese, foxes, deer, groundhogs. Everything you

can think of.”

An accomplished amateur golfer who didn’t begin playing until his early 30s, Medlin relishes preparing for an event such as the member-guest. The annual field includes some of his former Bethlehem Steel bosses. “It would be a tremendous opportunity to play in something like this and enjoy the fruits of your labor,” Medlin says between morning assignments. “I would put our greens up against any country club in the state.”

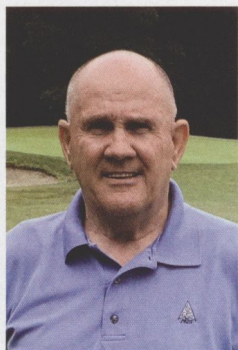
Assistant superintendent Adam Narivanchik was raised in a different era, yet he has developed a similar connection to the property. The abundance of well-paying mill jobs had been gone for decades when Narivanchik graduated from Patapsco High School and Center for the Arts, a Baltimore County Public School less than two miles from the club’s entrance. Seeking a job as a high school junior, Narivanchik opted to join a few of his friends on

the Sparrows Point crew. Besides occasionally fishing with his grandfather at a cove near the 18th hole, Narivanchik knew little about the club or golf. His grandfather, a longtime employee at the Sparrows Point mill, died in 2016 from mesothelioma, a

form of cancer caused by asbestos exposure. “He never really talked about work much,” Narivanchik says.

Narivanchik enjoyed working outdoors and learning about the intricacies of a golf course. But he never considered a career in golf course maintenance until receiving encourage-

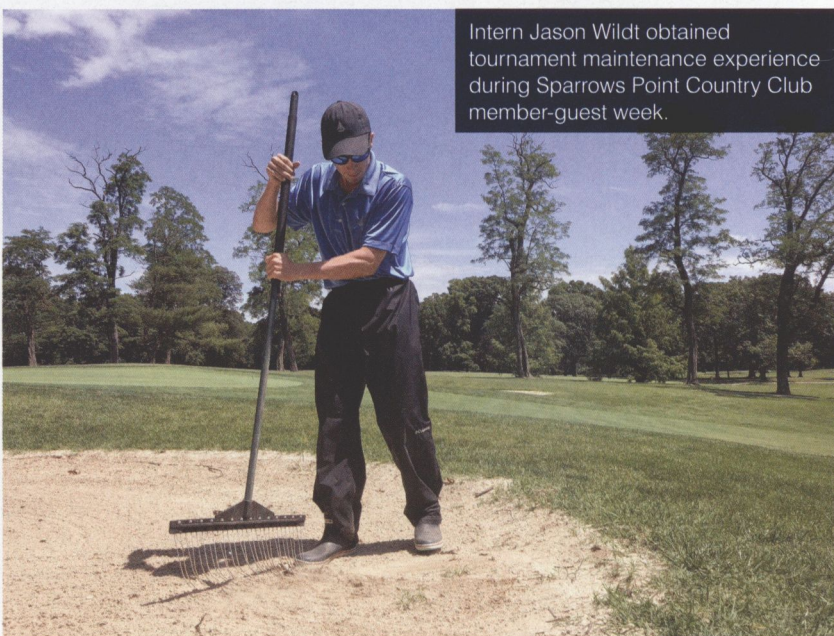
ment from Bloom, a Penn State graduate who worked at a quintet of highly regarded clubs before arriving at Sparrows Point midway through the 2014 golf season. Narivanchik is now close to obtaining an advanced turfgrass management certificate from Penn State. This year marked his fifth member-guest tournament and the internal emphasis on the event increases each year. “It’s not



▲ Medlin



▲ Narivanchik



Intern Jason Wildt obtained tournament maintenance experience during Sparrows Point Country Club member-guest week.

just like, 'OK, this week is member-guest,'" Narivanchik says. "It's a big deal to us and we're always thinking and talking about it now."

Narivanchik and Andrew Thornton are Bloom's closest confidants. The trio shares a small office inside a maintenance facility

lacking a restroom, air conditioning and space to conduct full-staff meetings. Thornton started working at the course as a junior attending Sparrows Point High School, another Baltimore County Public School within biking distance of the club. He performed multiple jobs as a student, including hand-mowing greens, before showing an interest in one of the more technical golf course maintenance tasks: fixing leaks and communications gaffes produced by an aging irrigation system.

Bloom paired Thornton, who competed in robotics events in high school, with a veteran golf irrigation technician. Thornton's seasonal job developed into a fulltime position. "It was a stable job with 40 hours," he says. "I live four minutes away, so it was the closest job I could basically get. It had steady hours and I like to be outside, so it fell into the couple boxes I had." Thornton has obtained a turfgrass management certificate through Ohio State and takes online electrical classes through Penn Foster

College. Thornton holds multiple roles, leading the irrigation efforts and helping Narivanchik and Bloom manage and train the crew. "I definitely like the problem-solving aspect of irrigation," he says. "If you didn't like that aspect, you would probably be fed up with it in a week."

On the day before member-guest practice rounds commenced, Thornton placed flags around many of Sparrows Point's 650 irrigation heads. The flags directed co-workers to heads requiring edging prior to the tournament. Bloom is a de-

tail-driven manager, so the volume of edging and trimming remains steady throughout the season. He uses morning meetings and casual course chats with employees to explain the importance of individual assignments. An event such as the member-guest, Bloom says, helps employees visualize why their work matters.

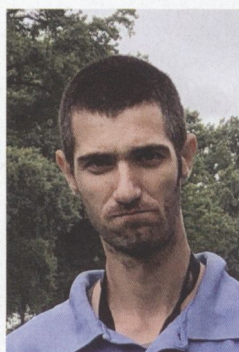
Bloom's team is unlike any group he has managed. Only nine of the club's 28 maintenance employees had worked a member-guest anywhere before this year. Some employees such as Kenny Kellner Jr., who joined the crew last August, had never stepped on a golf course before arriving at Sparrows Point.

"I never thought I would work at a golf course," Kellner says. "I had no idea how to cut grass for a golf course. It was like, 'What am I doing?' I thought it was just cutting grass. I had no idea about things like taking care of bunkers and how important things like bunker care are."

Acclimating a crew to the logistics of golf course maintenance while preparing for a member-guest represents a unique challenge. The Sparrows Point crew includes 10 high school students participating in a work-study program through the county school district. During the middle of member-guest week, a crew consisting of veteran workers and older newcomers started at 6 a.m., followed by the high school students at 7 a.m.

At the beginning of a Wednesday morning member-guest week shift, Bloom emphasized the importance of tournament preparation by showing the students a video featuring former Merion Golf Club director of grounds Matt Shaffer's involvement in the 2013 U.S. Open. Bloom served as an intern under Shaffer in 2006. "This member-guest, to me, is at the same level as that tournament," Bloom tells the students.

"I never want to let our staff down," Bloom says a day later. "It's probably my own pressure more than anything driving me. Every year, you try to set that bar higher and higher, then the reality sets in what we are doing here. I chose this crew and they chose working here. Sometimes you have to take a deep breath and appreciate what you're doing." GCI



▲ Kellner Jr.



◀ Thornton

About this series

Our Major is a three-part series exploring turf teams preparing for big moments. Subscribe to Golf Course Industry's e-newsletters for digital exclusives about the events profiled by entering <http://bit.ly/GCIenewsletters> into your web browser. Part 3 will profile the people and pride associated with the CP Women's Open.



Dear NARP

The two things superintendents have no control over are the weather and golfers. Some days, I'm not sure which is the bigger annoyance.

If you're like me, you have half-a-dozen or so weather apps on your phone, which we use as best we can to make our lives easier. Me, mostly to figure out how to pack for my next trip. You, to do your job.

Someone should invent an app that tells golfers what the weather means for their golf course. For example, if a storm just went through, even though the sun is now shining, doesn't mean the course is dry and ready to play.

On second thought, even if golfers had that app, they wouldn't believe it. How many of you have asked members or players to wait a few minutes and let your crew do its job, only to see carts speeding off across soaked fairways and through puddles, causing more damage? I know — all of you.

Even though I'm sure it will fall on deaf ears, I'm going to try to help. What follows is a "Dear NARP" letter. NARP stands for "Non-Agronomic Real Person." In other words, your member, player, guest or anyone else who look out the window and, regardless what the weather is doing, asks, "Can we play now?"

DEAR NARP,

You want to play golf. Everybody knows that, especially your course superintendent, whose job it is to make the course ready for you. But you have to believe him or her when they ask you to wait. Or announce that the course is closed. Here's why ...

AFTER RAIN

If the sign says keep your cart on the path, do so. Even if the sun is

out. After heavy rain, the turf will be soft and the cart can damage it and maybe get stuck. Which is bad for the course and the cart. And it could cause an injury to you, too. It doesn't matter that the course down the street is letting carts leave the path. No two courses are exactly alike even if they're next-door neighbors.

You've heard the expression "sh*t flows downhill?" That really is true on a golf course. Silt, soil, grass clippings and other debris will head downhill when dislodged by heavy rain, and seek the lowest areas collecting there. Drainage and evaporation will be slow, so those areas should be avoided.

I heard of a club member who complained to the green chairman that "I noticed the fairway was really wet as I drove across it. When are we going to get the superintendent to fix this?" We're good at our jobs, but we leave the weather to a higher power.

SUMMER SATURATION

Live along the Eastern Seaboard or in the middle of the country and you're familiar with the three Hs: heat, humidity and high dew points. On those really hot, sticky days, there's no evaporation — it's "air you can wear." With that much moisture in the air and in the ground, the grass will be soft, the greens slow, and the bent and Poa won't grow. Forget firm and fast; ask the pro in the shop if you can lift, clean and place!

There's no let-up in sight as changing weather patterns

bring more heat and frequent heavy rains. Your superintendent will do what they can to protect the turf, which is a minor inconvenience compared to having to close the course for major turf repair and care.

And please don't be like the NARP who recently asked me to talk to the superintendent at my New Jersey club because "the greens are slower than my living room carpet." Wiping the sweat off my face, I asked him, "Do you keep your living room at 104 degrees?"

FROST DELAYS

In areas free from snow or deeply frozen ground, it's possible to play almost year-round. Unless there's frost, which won't dissipate until the temperature gets above 35 degrees Fahrenheit. Even then, the superintendent will need a bit more time to prepare the turf for play, which is easily damaged until the ground and the turf warm up.

Just because you see the grounds crew out on the course working doesn't mean it's time to go play. Not yet. The crew knows where to go, where it's OK to walk and work, and keep their vehicles on the paths.

"But there was no frost on my windshield this morning," one NARP said to me. I asked, "Did you park your car in the garage overnight?" Just because you don't see frost doesn't mean it isn't there, affecting the turf. Sit tight, have another cup of coffee and wait until the superintendent tells you the course is ready.

continues on page 46



TIM MORAGHAN, principal, ASPIRE Golf (tmoraghan@aspire-golf.com). Follow Tim's blog, Golf Course Confidential at www.aspire-golf.com/buzz.html or on Twitter @TimMoraghan

...a challenge. While seed rest of the when you act, you steals your es e
Poa annua, also known as annual bluegrass, can disrupt play and discolor golf courses, lawns, and sports fields. It steals water, nutrients and sunlight from your perennial grass species, and if it goes unchecked, it can take over the turf. One of the most common grassy weeds in the world, *Poa annua* loves cool weather. It germinates in the fall, grows through the winter, and drops seeds in the spring that lay dormant until cool weather comes around again. Every *Poa annua* plant can produce hundreds of seeds every season, and those seeds can be dormant for years before sprouting. Controlling *Poa annua* can be a challenge. Mowing won't help, because while some grasses typically grow above the rest of the lawn, *Poa annua* can still produce seeds when it's short. With the right product, you can control *Poa annua*.

grows through in the spring weather conditions. *Poa annua* plants every season for years. Cool weather helps *Poa annua* grow and produce seeds.

YOU NEED AN EDGE.



KATANA® CUTS THROUGH POA.

You have to be sharp to stop *Poa annua* from taking over your turf. Katana® Turf Herbicide is proven to deliver exceptional control of *Poa annua*, plus tall fescue, clumpy ryegrass, and more than 50 broadleaf and grassy weeds.

► **Get an Edge on Poa: Wield Katana.**

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**Yes,
those
greens
need**

HOLES

By
Rick
Woelfel

The reasons for aeration are obvious to people with turf backgrounds. But the timing, tactics and communication methods are far from universal.

The word aeration means different things to different people. To a golf course superintendent, it is a process that enhances the health of the turf they are charged with nurturing and protecting. To some golfers, aerification is an annoyance or an outright nuisance.

Whether golfers know it, however, aerification is a process that is vitally necessary. This article aims to illustrate why that is the case. Matt Bachmann, the superintendent at Princeville Makai Golf Club in Princeville, Hawaii, explains why aeration is a part of his agronomic program.

"The main reason we aerify anything is thatch removal," he says. "I think over time you get so much thatch that builds up on the ultradwarf here. We have seed dwarf, which is kind of similar to the new hybrid Bermudas."

Bachmann explains that over time, thatch buildup creates a virtually impregnable layer between the surface of the grass and the soil. "What ends up happening is, over time, your water sits on the surface," he adds. "Your nutrients don't get to where they need to get to, and you can get a spongy surface, probably one that's more likely to scalp."

"It's very disruptive and there are other things you can do to mitigate thatch, but as far as removing the entire plug of thatch from the surface of the green to that soil level, where it's actually a mix of your green and sand, (aerifying) is really the only good option for the long-term health of the greens."

Jon Lobenstine is the director of agronomy for Montgomery

County Golf, which operates nine public-access courses in Montgomery County, Md., outside of Washington, D.C.

"The biggest benefits are continually rejuvenating the playing surface," he says, "which is constantly being compacted, for example, by mowers, golfers and general golf course activity. Also, by allowing better water infiltration into the soil, we can be more miserly with the water that we do put out."

"One of the goals, obviously, of golf course superintendents is to limit the amount of water that is put on the golf course because it's the most valuable resource that we have and there are certain places around the country where its use is restricted. By reducing the amount of water, we also reduce disease pressure and help grow roots and generally create a healthier plant."

While other methodologies have been developed for increasing air circulation through a green, utilizing solid tines for instance, it's a safe bet the vast majority of superintendents regard the traditional method of punching holes and pulling cores to be the most effective. Ed Shimkus is the director of agronomy at the Wickenburg Ranch, a semi-private facility in Wickenburg, Ariz., an hour northwest of Phoenix.

"I believe that pulling a core and removing the organic matter is the main reason why we (aerate)," he says. "Our goal is to reduce thatch and improve the firmness of the putting surface. It also provides the conduit for incorporating sand into the greens profile."

When and how often a facility aerates is determined by a number of factors including its

location, the local climate and the impact on play. The USGA Green Section will work with clubs to help them determine the best times to aerate from an agronomic perspective. But there are practical considerations as well.

Bachmann, whose facility on Kauai's north shore is open all year, aerates twice a year. This year's first aeration was May 13-14, with a second scheduled for Sept. 10-11. Ideally, he might aerate in June and again in August but the dates he's chosen make better economic sense.

"They're a couple of shoulder seasons," he says, "when kids are going back to school (in the fall) when it's heating up on the mainland. A lot of (visitors) over here head home."

Sometimes, as often happens in the turf industry, Mother Nature intervenes. In April 2018, Bachmann was confronted by a major storm that saw Princeville Makai absorb 28 inches of rain in a day-and-a-half. He aerated his greens not long after.

"You have to look at the entire golf course and say this is the best thing for our business," Bachmann says. "It took a little longer to recover, maybe (the greens) weren't 100 percent ready for it, but by the time we got the golf course back together, the greens were taken care of."

Bachmann will core aerify his tees, approaches, and green collars. Because his fairways are built on hard clay soil, thatch issues are minimal in those areas. He relies on solid tines instead and verticuts his fairways as deeply as possible without risking turf damage.

Shimkus takes a different approach, aerating once per month in June, July, August

and September when play is minimal because of the Arizona heat. The course is closed for three weeks each October for overseeding. The aerification schedule is built into the annual maintenance calendar but is subject to adjustment.

"We might consider moving the specific date if we have an outside event scheduled," Shimkus says. "The summer months are our 'off-season' and mostly geared toward our heavy cultural practices and renovation projects."

In addition to aerating monthly during the summer, Shimkus and his team will utilize needle tines on the greens during the spring to enhance water infiltration and promote gas exchange.

Jennifer Torres is in charge of the turf at Makefield Highlands Golf Course, a daily-fee facility outside Philadelphia. She aerates twice a year, the first time around April 1.

Torres admits that ideally that aeration would come a bit later but the schedule dictates otherwise. In recent years, the club has hosted a U.S. Open local qualifier in early May. The event was held May 6 this year.

"You might want to wait a little longer for warmer weather," she says. "You get warmer weather at that time of year, it fills in a lot quicker. The recovery time (for an April aeration) is the same as somebody who did it two weeks later and waited for a warmer period."

Torres typically does her second aeration just after Labor Day, nine holes at a time. She'll verticut during the season as needed. Torres points out that aeration is something that is needed to maintain healthy turf. "You have to have the airflow," she says. "You have to have water get into the roots and (break up) the compaction from everyday play and foot traffic."

Lobenstine times his aerations to minimize the impact on his courses' revenue streams. At one time, he

typically scheduled core aerations for March, before the season got busy. In recent years, however, he's adopted different methodology.

"We've actually gone away from our typical spring core aeration," he says. "Now, most of our courses are typically doing one core aeration (per season), typically the three weeks of August with the goal of being healed up by the Labor Day weekend."

Lobenstine notes that his courses typically experience a lull in activity in late summer, making it an optimum time to aerate. There are agronomic considerations as well.

"The other benefit of aerating in August is we limit the amount of *Poa* that germinates on the greens," he says, "or the fairways, if that's what we're doing, because *Poa* really tends to germinate and start becoming an issue in September when the weather cools off a little bit."

Lobenstine follows up the late summer aeration in November, utilizing a sand injector. "One of the reasons we do this is because it helps keep up with the dilution of the thatch," he says, "which is important, but also because these lines, while they are visual in their appearance and they do hang around for most of the winter, the surface of the greens tends to be much smoother than if we had done a core aeration in November."

Shimkus points out that today's aeration technology shortens recovery time and minimizes impact on play, and not incidentally, the impact on a facility's bottom line.

"I haven't used a tine on the greens larger than 3/8ths of an inch for over 10 years," he says. "The influence of quad tines at tighter spacing removes just as much organic as larger tines. However, ball roll and turf recovery are much improved in a shorter time period." **GCI**

Rick Woelfel is a Philadelphia-based writer and frequent GCI contributor.



Let customers KNOW

The fact aeration is not as intrusive a process as perhaps it once was does not diminish the importance of golf facilities keeping their members, guests and customers in the loop re: aeration schedules.

Makefield Highlands, where superintendent Jennifer Torres is employed, is one of a half-dozen courses in New Jersey and Pennsylvania managed by Spirit Golf, which makes it a point to publicize its aeration schedules.

Five Ponds Golf Club, another Spirit Golf-managed facility, scheduled aeration for this past April 1-2 (nine holes each day). Three days in advance, the club sent out an e-mail announcing when aerification would occur and offering a 10 percent discount on greens fees for the week beginning April 1. A notice was also posted on the club's website.

As a result, potential customers were aware of the schedule and could choose to putt on the aerified greens or play their golf elsewhere.


Princeville Makai Golf Club, where Matt Bachmann makes his professional home, utilizes an outside agency to book the majority of its tee times. Bachmann advises the agency of his aerification schedule and provides it with a worst-case scenario vis-à-vis recovery time so golfers booking tee times have an idea of what to expect.

Unfortunately, this customer-first mindset is not universal. I have been in numerous situations where a tee time has been booked by phone through the golf shop but aerified greens were not mentioned until we arrived on site, sometimes after a lengthy trip.

In my view, this should never happen. Golf facilities have an obligation to inform visitors when their greens have been or are about to be aerified.

It's simply good business and good for the game.

— Rick Woelfel



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COMING SOON UNION™ FUNGICIDE SC FROM PBI-GORDON: A POWERFUL TOOL FOR BATTLING TURF DISEASES

PBI-Gordon will soon bring a powerful new fungicide to market in Union™ Fungicide SC. We spoke with Jim Goodrich, Product Manager for Fungicides, Insecticides and Plant Growth Regulators at PBI-Gordon, to get all of the details about this new tool for controlling turf diseases.

What is Union™ Fungicide SC?

Union Fungicide SC is a broad-spectrum, flowable liquid formulation of two active ingredients. It's currently being registered with the U.S. Environmental Protection Agency by PBI-Gordon. This product is proposed to preventatively control 21 turf diseases.

What are the active ingredients in Union?

Azoxystrobin for broad-spectrum performance, including excellent patch disease control, and cyazofamid, the active ingredient that gives Segway Fungicide SC unsurpassed Pythium disease control.

What are the modes of action in Union?

Union will feature two modes of action, derived from a proprietary combination of Quinone outside inhibitor (QoI) and Quinone inside inhibitor (QiI) chemistry in FRAC groups 11 and 21 – two FRAC

groups with no known cross resistance.

What diseases will Union control?

Union will be effective in the preventative and curative treatment of Pythium diseases (including blight, damping off, root dysfunction, root rot), brown patch, anthracnose, cool-weather brown patch, yellow patch, fairy ring, gray leaf spot, red thread, summer patch, and rhizoctonia. In addition, other diseases will be listed on the product label.

On which grass species will Union be labeled for use?

Union is proposed to be labeled for use on all cool-season and warm-season turfgrasses, including Kentucky bluegrass, fine fescues, tall fescue, perennial ryegrass, bentgrass, Bermudagrass (common or hybrid), Bahiagrass, Buffalograss, Centipedegrass, kikuyugrass, seashore paspalum, St. Augustinegrass (including improved varieties of St. Augustinegrass) and Zoysiagrass.

Where will Union be labeled for use?

Union is proposed to be labeled for use in the following areas:

- Golf greens, tees, fairways and roughs
- Sod farms
- Seed farms
- College and professional sports

fields

- Athletic fields
- Residential lawns
- Commercial lawns
- Parks

At what rate will Union be applied?

The proposed use rate for Union runs from 2.9 fl. oz./1,000 sq. ft. to 5.75 fl. oz./1,000 sq. ft., which will deliver the full power of the two active ingredients.

What will be the maximum use rate for Union?

The maximum annual use rate for Union is 17.25 fl. oz. per 1,000 sq. ft. The proposed maximum application rate is 5.75 fl. oz. of product per 1,000 sq. ft. (which equates to 250 fl. oz. or 1.96 gal. of product per acre - that's equivalent to 1 lb. cyazofamid active ingredient per acre and 0.55 lb. azoxystrobin active ingredient per acre).

There are two additional label restrictions that users need to be aware of:

- Do not apply more than 5 lb. of azoxystrobin ai/acre/year.
- Do not apply more than 3 lb. cyazofamid ai/acre/year.

How will Union be packaged?

Union will be available in a 2 X 2.5 gallon case.

Are there any temperature restrictions or range restrictions with Union?

No – there are no temperature restrictions on Segway/cyazofamid or azoxystrobin, the active ingredients in Union.

When will Union be available for sale?

We expect that Union will receive EPA registration and be available in 2020. Because its registration is still pending, Union is not yet available for use or sale.

This material is provided for informational and educational purposes only. Union is not currently registered or available for sale. Union registration documents have been submitted to the EPA for review in the United States. This information is not intended to promote sales of the product. When product registration is secured, the product label will address claims regarding product safety and efficacy and sales of the product will be based on product labels.

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MADE EASIER BY EQUIPMENT

HOW HAVING THE RIGHT IN-HOUSE SOLUTIONS HELPED A
QUARTET OF COURSES ELEVATE PLAYING CONDITIONS.

© DAVID DÔRE-SMITH

EFFICIENCY PROVIDED BY EQUIPMENT

Until 2017, David Dore-Smith still worked with a contractor to fraise mow the practice tees at Copperleaf Golf Club in Bonita Springs, down in south Florida. The course handles more than 47,000 rounds annually and the divots on the practice tees were filled in so often with sand, Dore-Smith says, that it had started to crown. “We put a gauge on it and we had a 3-inch mound,” he says, “so we would contract out every year to have a company come in and fraise mow that mound out.”

Now, though, Dore-Smith turns instead to his own maintenance building, where he houses two Wiedenmann Super 600 heavy-duty sweeper, verticutter, fraise and flail mower collection systems. “We’re saving more than \$5,000 a year by being able to do that in-house,” he says. “And we do it when we want to, not at the mercy of the contractor’s availability.”

After years of using a sod cutter, Dore-Smith relies on the Super 600 to mow around collars, too. What once required two full days and five or six crew members is now “literally a one-day, two-man operation,” says Dore-Smith, who’s in his 16th year as the club’s superintendent. The end result is cleaner, too, with the collars growing back in quickly enough to repeat the process several times during a season, “so you don’t have to be as aggressive each time.”

Copperleaf shuts down for three weeks every July, more than enough time to allow the course’s 85 acres of Celebration Bermudagrass to recover and regrow prior to the late summer reopen. “It’s just one of those things,” Dore-Smith says, “if you do it routinely, even once a year, you can stay on top of it. If you leave it for several years, you have to be more aggressive.”

“Similar to most everything: the more often you do it, the easier it is each time.”

KEEPING NEW TURF TERRIFIC

Back in January 2016, during his first month as its new superintendent, Wesley Curtis helped plant 1,000 trees across the 148 acres of Westwood Golf Club in Houston, most of them oaks, some of them pecans and bald cypress. The forest flurry was the first step in an incredible renovation for a club that recently teed off its 10th decade in Space City. Before he was hired, club officials told him they wanted to dive into a renovation. “It was just up to me the extent of that renovation,” Curtis says.

So, during 93 frenzied days last summer, Curtis and his crew worked with various contractors to resurface the greens — peeling off 4 to 5 inches of the surface before building them back up and planting TifEagle greens — resurface the tees with TifTuf Bermudagrass, and re-edge every bunker. And once the renovation wrapped up, maintenance bounced back in full force. Curtis is a devotee of Wiedenmann products, describing them as “very durable” and “mechanically friendly.” “The less you have to work on it,” he says, “the more you can use it, the more it’s in the field, the less downtime.”

His Terra Rake and Terra Brush are used in concert to brush fairways “to stand ’em up, to mow ’em, to get more of a true cut but also to get a more playable surface.” He breaks out his Triple V-375 “once a year, during the summer, to verticut fairways in an effort to remove the thatch that built up over the rest of the year.” And his Super 500 turf sweeper and Mega Twister work hand in hand to clean up the course — a process that used to take a week and now takes a pair of crew members less than two days. And that’s great, because 1,000 new trees sprout a lot of leaves.

“

“SIMILAR TO MOST EVERYTHING: THE MORE OFTEN YOU DO IT, THE EASIER IT IS EACH TIME.”

◀ The Super 600 has helped Copperleaf Golf Club handle more cultivation projects using in-house labor.

SPONSORED CONTENT

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▲ The Terra Float Air aided a conversion from bluegrass to bentgrass at Edmonton Petroleum Golf and Country Club.

SIMPLIFYING THE SEEDING PROCESS

To hear Keith Blayney tell it, plenty of superintendents “down south pay a lot of money to overseed in the winter.” Of course, Blayney is an Alberta native and has worked as the superintendent at Edmonton Petroleum Golf and Country Club for the last 19 years, so most course superintendents, technically speaking, work “down south.”

Because of geography — and the weather that comes with it — Blayney paid considerably less money by turning to Mother Nature when he transitioned from bluegrass to bentgrass in 2018.

A particularly brutal freeze-thaw cycle the previous winter had throttled the club’s fairways, leaving all but a handful either in poor condition or outright dead. “We were planning on doing a bunch of work anyway down the road, so there was no sense in spending all the money on the sod,” Blayney says, “so we

thought we’d seed.”

Blayney turned to a new Wiedenmann Terra Float Air, then opted to switch to bentgrass — “the quickest germinating seed other than ryegrass,” he says — to capitalize on the winter damage. Blayney worked with his crew to overseed entire fairway areas, seeding in two directions every few weeks throughout the summer. “We did it in two directions on everything, and then as some germinated we would go in a single direction, and then we carried on,” he says. “If we had a rain event, it would kill off the bentgrass, so you would have to go again, doubleseed it again, and keep after it pretty much the whole summer.”

Oh, and about those Edmonton summers: “We have long daylight hours in June,” Blayney says, “18 hours of daylight, so that’s the grass-growing time.”

Seems like a perfect contrast to those long, cold, freezing, thawing,

brutal winters — and good for new grass.

A CLEANUP FLEET

When Jon Urbanski moved almost literally next door to Wilmington Country Club in Delaware after 14 years at neighboring Bidermann Golf Club, the most drastic change, at least from course to course, was the sheer number of trees. Bidermann counts maybe 100 across its property. Wilmington, on the other hand, has more than 2,500, according to the club’s senior horticulturist Peter Coates.

The trees are such a unique part of the landscape, Urbanski says, that more than 160 more trees are being raised in a nursery in a corner of the 385-acre property.

All those trees produce plenty of work later in the year, of course, when fall leaf cleanup fills the schedule. That’s one of four distinct areas — along with fine fescue rough management, storm cleanup and aerification cleanup — that Urbanski earmarks for his six Wiedenmann Super 600 heavy-duty sweeper, verticutter and flail mower collection systems. The fleet allows Urbanski and his team “to get out in front of play on a regular basis and expedite the cleanup of the course,” he says. “I don’t think six is a luxury. I do think the property calls to have at least that many units here.

“If we didn’t have them, it would be a constant ballet of blowing leaves and mulching them up.”

Instead of a careful choreography to clear so many acres of detritus, Urbanski is now planning to turn those collected leaves into home-made organic soil and mulch, incorporating the leaf litter into the existing organic dump area. “We spend a lot of money on mulch here,” Urbanski says. “If we can create our own mulch here and just cut that amount in half, we can reallocate those resources.” **GCI**

By John Torsiello

A New England course ownership tandem is making a major commitment to alternative energy. Will others in the region follow?

SERIOUS ABOUT

GOLF

Joe Videtta, co-owner of Laurel Lane Country Club in West Kingston, R.I., knew it was the right thing to do on so many levels. It meant being a good steward of the land, lessening his course's carbon footprint, and making a significant impact on his energy bill.

What did Videtta do to accomplish all three? He built a solar farm on his course that fully powers every aspect of his club, from the sprinkler system to the lights in the clubhouse. He believes Laurel Lane, an 18-hole daily fee course, is the only totally solar-powered golf club in New England, and maybe the Northeast.

Videtta, who owns the course with his brother, Mike, installed a solar farm on about an acre of property the course sits on. The farm, which houses 14 solar



▲ Laurel Lane CC features a solar farm powering every aspect of his club, from the sprinkler system to the lights in the clubhouse.

offices in Rhode Island, Massachusetts and Florida. The units came online last fall.

"Laurel Lane is located on about 180 acres, so it was an ideal location to install a solar farm," says Videtta, who also owns Country View Golf Club in Rhode Island and Pine Ridge Country Club in Massachusetts. "We already had an electrical source near the pump station that cut down the total cost," which was half-a-million dollars. The price tag for the solar farm was offset by federal tax credits, depreciation and a Rhode Island program that allows for the owner of a property to finance 100 percent for such a project.

"We really wanted to do something different because we hope to remain in business a long time," Videtta says. "Electricity is a major cost that we had no control over, and we wanted to do something about that.

I started to see more and more solar panels on houses, and I said, 'Why can't we do something like that on a golf course?' The solar farm actually overproduces electricity and we get a credit against the demand side of the electricity bill."

One unique aspect of the solar panels is that they are not fixed but can rotate to follow the sun. Videtta says this type of farm is 30 to 40 percent more efficient than fixed solar panel arrays. The field is about 40,000 square feet in size and required shifting the location of the eighth tee.

"We are saving on our energy costs and the system is warranted for 25 years," Videtta says. "Everyone thinks it is very cool and when they know that ownership is doing something with the environment in mind, they are pleased. In fact, I have had golfers come up to tell me how happy they are that we did this."

Anthony Barrow, managing principal for E2SOL LLC/Efficient Energy Solutions, explains that each of the 14 AllEarth dual-axis solar tracking systems produce 216,000 kilowatt hours per year, offsetting 100 percent of the facility's electrical usage expense. From groundbreaking to final installation, completion of the project took about 30 days, and the final grid interconnection took about 60 days.

Barrow says each dual-axis solar

tracker is aligned to the sun at sunrise and follows the sun continuously throughout the day, adjusting its angle to the sun on two axes in order to maximize solar generation production. He says a dual axis tracking system produces on average 35 percent more power than a standard solar fixed system.

According to Barrow, the project went smoothly, including the standard process of obtaining town planning board permits, grid interconnection and Commercial Property Assessed Clean Energy financing project approvals. CPACE is a financing structure in which building owners borrow money for energy efficiency, renewable energy or other projects and make repayments via an assessment on a property's tax bill. Some of the approvals varied in cycle time, ranging from 30 to 120 days, depending on the agency involved in the approvals. Barrow's company has installed similar solar farms at other commercial properties in New England.

If there were any delays, Barrow says, it was extended customer project financing approval through CPACE. "Customer property financing for the first lien had to be re-assigned to the solar project CPACE lender in order to qualify for 100 percent financing terms," he says, but it was a minor hurdle to clear and didn't delay the project to any significant degree.



Laurel Lane CC co-owner Joe Videtta, fourth from left, cuts the solar project ribbon with local officials.

Could solar farms be the wave of the future for golf facilities? Will golfers someday take them for granted as they do a maintenance facility or fairway mowers? Barrow believes the answer is a resounding yes.

“Golf courses should seriously consider turning their excess acreage, as well as empty facility building roofs and parking lots, into solar revenue producing facilities,” he says. “Why would anyone pay for electricity from the grid today when you can generate your own clean power? You can qualify for 30 percent of the total cost of a system as a federal income tax credit in 2019, 100 percent accelerated capital depreciation in year one, up to 100 percent financing through the CPACE program in certain states, and cash grants in other states. If the golf courses are zoned as farmland or in a qualifying small rural town, they could qualify for a government energy grant up to \$250,000.”

Besides being able to offset the golf course electric demand expense through the net metering program, golf courses can sell their power to their local utility or third-party entity (in approved states such as Rhode Island, New York and Massachusetts) under a fixed term rate for 20

years. Any course, operating in the winter months with no golfing activities, Barrow says, could be selling power to their local utility to generate residual revenue.

“With the advent of the continued electrification of transportation, golf course customers will be soon arriving with their Teslas, Mercedes, Volkswagens, Volvos, and other electrical cars within the next three to five years,” he says. “If golf clubs and courses want to offer increased services to their customers, they will likely need to provide electric vehicle charging services to those who stay all day at the facility.”

Those interested, Barrow says, can review all federal and state incentives offered for such solar farm projects at <http://www.dsireusa.org/>.

The project has been so successful that Videtta Golf Management has strengthened its commitment to changing how their facilities receive energy. Plans are for a solar farm to be set up at Country View Golf Club. “We are excited about bringing that course online with solar power as well,” Videtta says.

Perhaps more courses will follow the Videttas’ lead in making their facilities as green as the grass that grows in their fairways and on their putting surfaces. **GCI**



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continued from page 32

WINTER PLAY/FROZEN GROUND

If you live somewhere with real winter, you know how quickly temperatures and conditions can change. Ground can go from frozen solid to thawed in a matter of hours. The grass covering the ground may appear ready for play, but the soil is still frozen, making the plant susceptible to root fracture or crown crushing. Those terms mean exactly what they say.

Unfortunately, sometimes operators have to allow winter play at the expense of the golf course. It's an economic reality that might, in the long run, cost more in repairs and additional labor once winter is over. So, your round in January could severely affect your rounds in June.

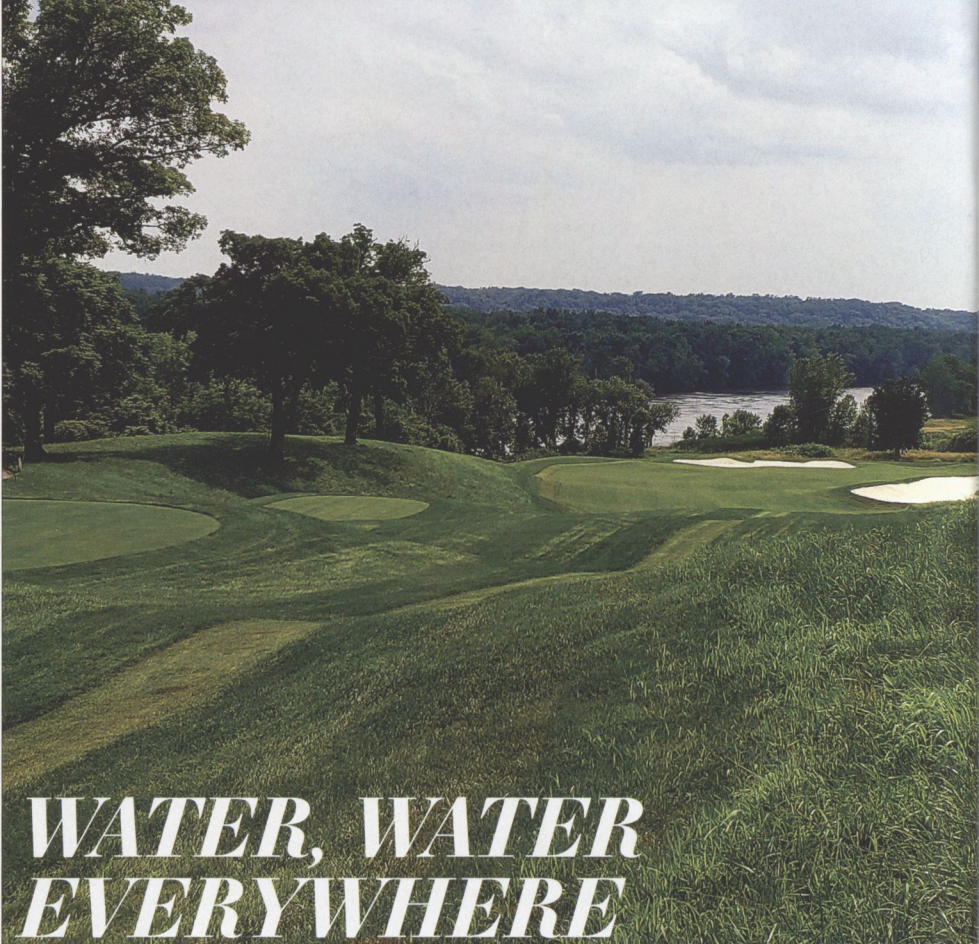
If you are lucky enough to play on a winter's day, enjoy it but don't expect perfect conditions. Last December, I was able to get in a round with a NARP who nearly ruined it when, while tallying our scores, he said, "You need to talk to the superintendent about the slow green speeds today." I wanted to stab him with my pencil.

SEVERE STORMS

Let's hope none of us has to endure tornados, hurricanes, hailstorms or other freakish acts of nature. But they occur, and just as you worry about the damage they'll do to your home, your super has to deal with their effects to the course. Even if it's nothing serious, cleaning up after any of these events is long, hard, messy work, which doesn't go any faster because NARPs want to know when they can get back out and play.

Believe it or not, dealing with severe damage to the course is an emotional experience for superintendents and their crews. It's really tough to see all their hard work washed away or chewed up. Months of planning and effort can be wiped out in minutes. The staff knows you want to play as soon as possible, but a golf course is a living thing that doesn't heal from major trauma with a snap of the fingers.

No matter what the weather – and for the record, I believe that climate change is real and will continue – please be considerate, understanding and patient as your superintendent and crew do all they can to get the course back into shape. **GCI**



WATER, WATER EVERYWHERE

Alex Stuedemann and his TPC Deere Run crew pushed through the rainiest spring in recent memory to make the John Deere Classic sparkle.

Like most Midwest courses, TPC Deere Run received far more rain this spring than history says should fall around the Great Lakes as the calendar turns toward April and May, inch after inch pouring down on its 385 acres. Unlike most courses across the Midwest, TPC Deere Run still needed to open its gates for the crowds and cameras that accompany a summer PGA Tour event.

How to prepare an expansive property for a weeklong television showcase when rain relegates you to the cart path? Ask Alex Stuedemann, the veteran director of golf course maintenance operations now in his sixth year back in the Quad Cities after TPC stints in Minnesota and Texas.

The course received 13 inches of rain from April 13 to May 12, he says, "and it just kept stacking, stacking, stacking on top of a very snowy winter – it was the second- or third-snowiest on record for the Quad Cities – so the soil was already charged and now we had all this rain."

The rain never relented. "It was just so continuous," Stuedemann says. "It wasn't like we were getting blown out. The bunkers were fine,

and for the most part, the golf course maintained its integrity, we just couldn't get on it."

Golfers were permitted to drive off the path just four days during May. More important for the tournament ahead, Stuedemann and his crew of 25 mowed fairways only two or three times during the month and were unable to mow the rough even once. A fleet that includes 109 pieces of John Deere equipment remained in park.

"We were picking our battles," Stuedemann says. "What was imperative to be done prior to the event? What were the things that we might see but the professional golfer or the spectator coming out here wouldn't know the difference? Those are tough choices to make, because it's kind of a bug in your craw, not having something done, even though in your eyes almost everybody else can't see it." **GCI**

— Matt LaWell

For more on how Alex Stuedemann and his impressive crew prepared TPC Deere Run for the PGA Tour, enter bit.ly/TPCDeereRun into your web browser.

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TRAVELS WITH TERRY

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

WATER COOLER FILLER-UPPER

The labor time of course travel, filling and servicing of 12 golf course water coolers was cut in half, from four hours to two hours, by mounting two Grainger 55-gallon polyethylene sanitized drums (\$120.60/each), two Grainger 2-inch PVC drum faucets (\$17.23/each) on top of two Grainger drum racks (\$134.53 each) held in place with one Husky/Home Depot 15-foot by 1-inch ratchet strap (\$4.75) placed in a John Deere UTV. The coolers are filled out on the course instead of being transported back and forth to the maintenance building/clubhouse. A third sanitized bin contains ice acquired at the clubhouse. Clean and sanitized spare water coolers are changed out on a regular basis. This vehicle also performs occasional checks of the clubhouse pathways, a 62-slip marina, Har-Tru tennis court preparations and restroom cleanup, where all of the supplies can be stored inside the UTV bed. Tyler Bloom, superintendent, Colin Kratz, seasonal staff member (in photo), and assistant superintendents Adam Narivan-chik and Andrew Thornton, who conceived this idea, implemented the system at Sparrows Point (Md.) Country Club.



TIDY GREENS & TEES

Whipping poles are a thing of the past as this Stihl Handheld Blower (\$79.99 to \$109.99) quickly and easily removes grass clippings, dew and leaves prior to and after mowing the tees and greens. All of the greens and tees triplex mowers are equipped with them using an L-shaped bracket acquired from Home Depot (\$10 at most) mounted with a nut and bolt through a $\frac{3}{8}$ -inch or $\frac{1}{2}$ -inch diameter hole. The tee mowers have a divot bottle attached with a soil/seed mix for filling in divots on the tees. The tee mowers also have $1\frac{1}{2}$ -inch diameter PVC "T"s that are used for the proper tee



marker alignment. The greens mowers have ball mark repair tools on the mower's keychain and a "Gash-B-Gone" to fill old ball marks with greens sand. Tyler Bloom, superintendent at Sparrows Point Country Club in Baltimore, has devised another great idea.



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

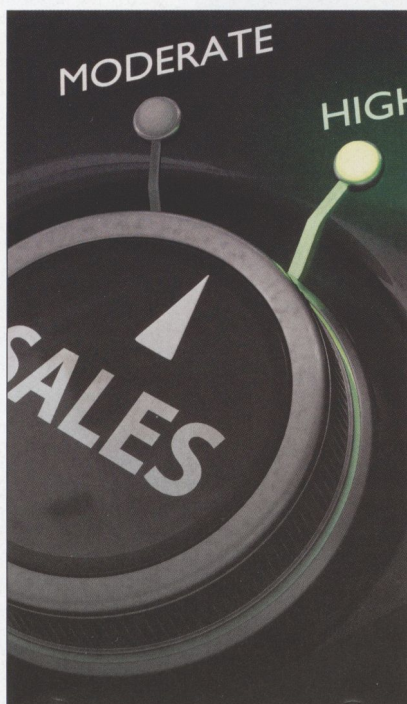
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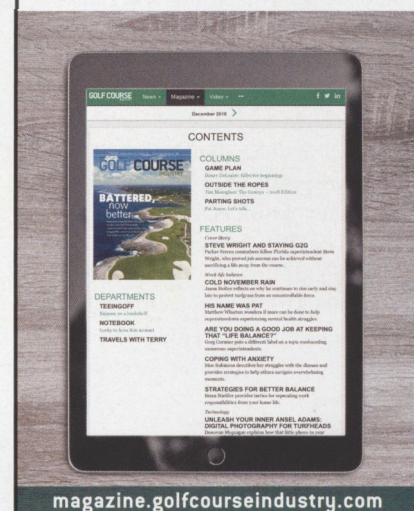
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Old dog

So, it turns out that E-ZPass is the bomb. I'm not sure why I always resisted the little magic box that pays your tolls. It seemed like a hassle to get one and I am a wee bit prone to procrastination, so I just never got around to it. Instead, I scrambled for change or hoped the tollbooth accepted whichever valid card I had at the moment.

Then, a few months ago, Mrs. Jones was forced to listen to a long stream of epithets, expletives and blasphemies streaming out of my piehole as I tried in vain to make a credit card work at a tollbooth on the %#@\$\$! Indiana Turnpike. So, being a problem-solver, she got me an E-ZPass and registered it. Took about seven minutes. She smiled knowingly when she handed me the little plastic box.

Oh. Dear. Lord. Greatest thing ever. I feel like I have a magical key that saves me time, money and anxiety. I giggle like a school-girl and shout "Open Sesame!" every time that tollgate automatically lifts into the air. What a dumbass I was for not doing it sooner.

I also recently had a change of heart about Crocs, the comically ugly foam rubber shoes. I had decided years ago they were kind of douchey and even occasionally made fun of turfheads who wore them (I'm looking at you here, Alan Hammond).

Again, Mrs. Jones played a role by pointing out that I didn't own a pair of sandals and I should get something beachworthy. After much procrastination, I snuck into

a shoe store and pretended that I wasn't really looking at the Crocs. Then I stealthily tried a pair on. I haven't taken them off since.

And, as you may have heard, this old dog recently made a career change. That (hopefully) wise decision was also encouraged by Mrs. Jones who said, "Do whatever makes you happy." For once, I was being proactive, but it still wouldn't have happened if I hadn't heard her lovely southern voice repeatedly telling me to go for it.

So, I hope the lessons here are obvious.

First, it's never too late for an old dog to learn new tricks. I think that the happiest and most successful supers are the ones who constantly try new things and are capable of changing on the fly. Like Mrs. Jones, y'all are problem-solvers. I'll never forget 2009 when many supers had budgets slashed as the recession hit. Instead of whining about it, the majority of you accepted the challenge and said, "Oh yeah? Let me show you what I can still do with 25 percent less money."

The best current examples I see are the folks who are now experimenting with new ways to recruit, train and retain staff.

Recognizing

that the old labor model is gone and it ain't coming back and

worrying about it is one thing. Taking action to find new and creative ways to address it is the real trick. But many of you are doing just that.

Second, procrastination is the foe of progress. Fundamentally, we procrastinators fear failure, so we rationalize doing nothing. Remember what Thomas Edison said: "I have not failed. I've just found 10,000 ways that won't work."

One of the things I've always loved about you guys is how much you love growing grass, yet you embrace the idea that killing it comes along with the job. Killing grass isn't failure ... it's just finding another way that doesn't work.

By the way, even young dogs learn new tricks in our business. I've lost track of the number of aspiring turfheads who said they had never used Twitter before getting into our business and were baffled that anyone would use such a goofy social platform. But they were willing to try once they saw the value.

Finally, when it comes to embracing change, count yourself blessed if you have a partner like Mrs. Jones who will nudge you, lovingly, in the right direction. When we start to believe we know it all, there's nothing more important than having someone who cares enough to gently disagree and help you learn a better way. For 10 wonderful years, Kim has patiently done that for me. And I love her madly for it and a million other little things. How lucky can one old dog get? **GCI**

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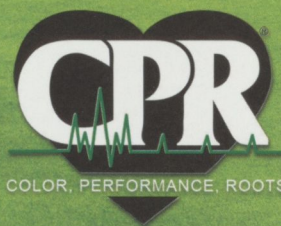
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