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#### **GREATNESS? WHY NOT?**

ouse ad is the publishing term for print or digital placements promoting the brand readers are consuming. House ads reside on pages 30, 39 and 49 of this issue. The placements are part of a strategic campaign positioning the "greatness" of Golf Course Industry to existing and potential audiences and partners.

Humility makes this industry ... well ... great. So, why aren't we emulating the audience we serve and humbly conducting our business in 2025 and beyond? Greatness, we acknowledge, can be interpreted as braggadocious.

For starters, we think we have a desirable thing going. Publishing is a brutally competitive and cutthroat industry. Not everybody can afford to build a golf course, but anybody with a phone and a computer can start a media company, either as a full-time gig or a side hustle.

The media business of the 2020s resembles the golf industry of the 1990s: overcrowded with dreamers more concerned with the next 20 minutes instead of the next 20 years. Very few enduring and impactful stories to help somebody's business, career or life are being told. And many media brands that once told these stories are teetering because they are slow to adapt and fail to understand how their brands resonate with modern audiences. Unfortunately, some of these brands are hanging around, telling the same stories, in the same ways, about the same topics, as they hope for a double eagle to ignite a turnaround. The days, months and years on their mastheads represent their lone displays of evolution.

Greatness means doing something you're not supposed to do. It requires a mission—we state ours on this page—and forward-pointing tactics to meet and hopefully exceed stakeholders' expectations.

Are we great? That's for you to decide. Our bold house ads and messaging reflect our mindset. A few years ago, an industry professional who left a position at a world-class golf course for a job at another course explained his decision by saying, "I didn't come this far to come this far." His point? There's always another level to take your career or business. That's how we feel about storytelling.

We've been honored multiple times in places where B2B and industry publications never imagined being lauded and have assembled a collection of immense writing and thought leadership talent generating impactful content presented to help you in the next 20 minutes and the next 20 years. Our house ads are internal reminders of what we are trying to achieve and maintain.

We also hope they remind audiences where else they can find our work. For as much time, effort and attention as we devote to telling the golf maintenance story, we sometimes struggle telling our own story. Enter a targeted internal marketing campaign.

Our brand connects the golf industry via multiple platforms. Judging by the metrics, thousands of industry professionals know where else to consume us, but we can't be certain the entire industry knows about our Superintendent Radio Network podcasts, Fast & Firm newsletters, and X, Facebook and LinkedIn presence. Telling your own story should never stop. Thoughtful marketing isn't bragging; it's an enduring business practice.

Greatness also shouldn't have a ceiling. We know bigger non-industry golf media brands boast larger teams and budgets. But we strive to match them word for word, post for post and podcast for podcast.

Following college wrestling is one of my winter passions. A reporter recently asked University of Northern Iowa coach Doug Schwab after his team's triumph in the Division I bracket of the National Wrestling Coaches Association National Duals about the event's format, which brought together programs from outside the sport's three major conferences. Mid-major is the term the reporter used in referring to tournament participants.

"I'd like to get rid of mid-major," Schwab snapped. "I don't know what mid-major means. Just because we don't have as many funds. Is that what it is? Is it the size of our school? We don't think mid-major, whatever the hell that means. It kind of actually pisses me off a little bit, I'm not going to lie. I feel like that's a downgrade to what we are as a team. I feel like we are one of the best teams in the country. We don't put anything next to our team besides University of Northern Iowa."

Replace mid-major with B2B and/or industry publication, and Schwab's words summarize how we feel about Golf Course Industry.

Do you feel the same way about your course or business?



Guy Cipriano Guy Cipriano Publisher + Editor-in-Chief gcipriano@gie.net

## GOLF COURSE

MISSION STATEMENT To provide an independent, innovative and inclusive voice for today's — and tomorrow's industry professionals.

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GIE Media, Inc. 5811 Canal Road Valley View, Ohio 44125 Phone: 800-456-0707 Fax: 216-525-0515

GROUP PUBLISHER Dave Szy

dszy@gie.net

PUBLISHER + EDITOR-IN-CHIEF **Guy Cipriano** 

gcipriano@gie.net

EDITORIAL Matt LaWell

Managing Editor • mlawell@gie.net

Kelsie Horner

Assistant Editor • khorner@gie.net

**Terry Buchen** 

Senior Contributing Technical Editor

GRAPHICS / PRODUCTION Jim Blayney

Creative Director

**Kaitlin Sellers** Advertising Production Coordinator

> SALES **Russell Warner**

National Sales Manager rwarner@gie.net • 216-393-0293

Jimmy Clark

Account Representative jclark@gie.net • 216-393-0220

> CORPORATE **Richard Foster** Chairman

**Chris Foster** President and CEO

Dan Moreland Publisher Emeritus

James R. Keefe

Executive Vice President

Kelly Antal Controller

**Christina Warner** Director of Data Acquistion

Michelle Wisniewski Production Manager

Maria Miller

Director, Conferences and Events

Irene Sweeney Marketing Director

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## DADOBE STOCK

## NOTEBOOK



## Are you investing in your team's mental health?

Numerous studies indicate developing elevated standards of support for employee well-being can yield enduring benefits for all parties involved.

#### By Max Hirsh, LCSW

olf industry employees pursue careers that support their love of the game. However, their experience may fall short of their expectations. Many jobs are subject to long hours, minimal time off, physical strain, and unrealistic expectations of golfers and club leadership.

The stigma surrounding mental health issues has motivated employers to support employees with appropriate resources. Ac-

cording to the 2024 NGCOA Benefits and Compensation report, only 32 percent of private and public clubs offer Employee Assistance Programs (EAPs) and mental health insurance benefits.

Global trends highlight the demands for mental health support in the workplace and companies are quick to invest in solutions, resulting in EAPs doubling in the past five years. But this growth doesn't necessarily lead to quality support. Many large insurance companies saturated the market with EAPs that fail to address the acuity and attention to personal care often needed to navigate mental health issues.

The need to address employee wellness rings true in the golf industry. Employers and employees have expressed growing concerns since the COVID-19 pandemic with recreation and hospitality workers notoriously under-supported by their employers. Statistics show they are among the lowest percentage of employees to receive any mental health benefits or EAP support.

Collecting statistics on how mental health affects employees is challenging, largely due to stigma and employees' lack of awareness about their own mental health. A recent Syngenta Golf survey found that more than 60 percent of greenkeepers, PGA professionals and club managers reported increased mental health challenges starting in 2021. They also lack support from employers, and only 9 percent ever connected with a mental



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health provider.

This is a costly problem for an industry that has seen exponential growth the past five years. There's substantial strain on the existing workforce, challenging companies to find and retain talent. It is evident that by prioritizing healthier workplace dynamics and culture, with an emphasis on mental health and well-being, customer satisfaction will increase. Not only will this attract the best employees, it will also ease pressure on current employees, encouraging them to stay in their roles and contribute to the industry's progress.

Supporting a team with healthy, proactive solutions that directly address mental health is neither difficult nor expensive. Implementing behavioral health support for employees who are grinding through the burnout and struggling with job satisfaction can streamline the process to address these issues, offer support and educate management on how to identify problems before they impact productivity.

Finding a service that understands the need for both individualized and evidence-based practices is more difficult for companies worldwide. Most EAPs are underutilized because education and marketing strategies are not used. According to a report by Burr Consulting, approximately 97 percent of U.S. companies employing more than 5,000 workers offer EAP benefits. But utilization rates remain low, averaging less than 10 percent. The services EAPs offer are often low-touch, with minimal guidance, usually involving sending a list of providers along with three to 10 free counseling sessions.

However effective the counseling

sessions are, companies who invest in internal behavioral health support can see greater benefits. Without a close look at the workplace culture, burnout is contagious and difficult to extinguish without a thorough organizational evaluation. Since the culture in the golf workplace has traditionally been to "show up and shut up," addressing this directly leads to sustainable and healthier team dynamics.

With the popularity of golf still surging in 2025, the industry is poised to reform and develop more attractive benefits for employees. The industry can now capitalize on the paradigm shift on mental health, as it's become a buzzword.

The impact of social media, current events and a polarizing sociopolitical landscape is clear, and the behavioral health industry has grown to fill the demand. This has made navigating the behavioral health space more difficult than ever. The normalization of telehealth has supported this growth, but providers are not regulated or supported by supervisors. Challenges persist in the behavioral health space, leading to burnout and variation from best practices.

Even with these shortcomings, when employees can access services, mental health support has proven benefits to employee performance and retention. It's easy to justify investing in mental health support for golf industry leaders. According to a recent study by the National Safety Commission and The University of Chicago, the return on investment is high, anywhere from \$4 to \$10 for every \$1 spent on mental health support for employees, illustrating the cultural

impact and the financial benefits.

Many EAPs offer affordable options for employers to invest in services. Usually, this is available at a per employee per month rate between \$3 and \$10, depending on the size of the company. According to a study on case management efficacy by the Institute for Safety, Compensation and Recovery Research, increased touchpoints with case-independent consultants can provide leads to better outcomes and higher employee satisfaction.

Many agencies supporting golf employers have begun to prioritize the issues around mental health in the workplace. Industry leaders have partnered with experts to develop new strategies and services for owners and managers to address the complaints. It's clear the golf industry is poised to develop a reformed approach to mental health treatment.

As it moves to the forefront of industry issues, developing new standards of support can catapult golf as a leader in workplace behavioral health. With the health benefits of golf, and the passion many employees have for their jobs, offering these services can progress cultural reform and reach new groups to play and work in golf.

Max Hirsh is a workplace behavioral health consultant and Licensed Clinical Social Worker. He's worked the past six years for a renowned Employee Assistance Program, Mental Health Consultants, Inc., and recently launched his own company, Scratch Counseling and Consulting, LLC. Learn more about his services by visiting his website www.scratchlcsw.com or contacting him directly at max@scratchlcsw.com.







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#### **Tartan Talks** 103

Logan Thompson is in the early stages of his golf course architecture career and he's already nearing the end of a ninephase project. Yes, nine-phase projects can be a thing for a golf course architect!

Thompson

"It was originally supposed to be 10." Thompson says of the efforts at Loudon Golf & Country Club in northern Virginia.

Thompson is the lead designer for McDonald Design Group, where the work is steady and varied. Last fall, he completed the seventh phase of the Loudon Golf & CC effort. "Loudon is an example where people are really excited to see us come out, and they are really excited about what's on the docket for this year, what we are going to improve and how it's going to turn out," he says on the Tartan Talks podcast.

This year, Thompson will plot and execute projects everywhere from Maryland's Eastern Shore to the Blue Ridge Mountains. "One of the things I love about this industry," he says, "is that no two renovations are the same. It keeps you on your

toes and it's exciting."

Enthusiasm permeated Thompson's debut Tartan Talks appearance. To learn more about where he's working and his route to becoming an ASGCA member, visit the Superintendent Radio Network page of all popular podcast distribution platforms.

## COURSE

The Golf Club at Crown Colony in Fort Myers, Florida, approved a \$12 million master plan that includes a renovation guided by Bill Bergin of Bergin Golf Designs. Work is set to begin in 2026 and involves upgrading irrigation and drainage on all 18 holes, adding and relocating tee boxes, creating grass bunker faces, and redesigning multiple holes, including the 10th and 18th. ... Tubac Golf Resort & Spa in Tubac, Arizona, completed a greens renovation on its Rancho Nine, planting Dominator bentgrass greens. With Tubac's Otero Nine undergoing a similar greens renovation in 2023, the 27-hole property now has 18 holes with Dominator bentgrass greens. ... Winnetka Golf Club in suburban Chicago earned Audubon Cooperative Sanctuary status. ... Panther National, a new residential community and private golf club in Palm Beach Gardens, Florida, promoted Dan Fore to director of agronomy and Ryan Beech and Ryan Gurrola to course superintendents.





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## Hannah Orr

#### SHADOW RIDGE COUNTRY CLUB

hen Hannah Orr applied for the superintendent's position at Shadow Ridge Country Club in Omaha, Nebraska, she was on familiar ground. She had been an assistant at the club for 18 months and had a broad range of responsibilities. But she was hesitant about taking on the top job at the private, family-owned club until the crew convinced her it would be a good fit.

"When I was hesitant about taking the job, the crew was very supportive," she recalls. "They were like, 'You've been doing the job, and you've been doing your job and the head job for the last two years. You might as well get paid for it."

That was in October 2023. Sixteen months later, Orr is comfortable in her role.

"I feel pretty good," she says. "I have a very good, supportive team. Everybody kind of filled the pieces of the puzzle that we needed to make my life easy. We have great horticulturalists, great irrigation, I have a great assistant and mechanic. Everybody says the course is the best it's ever been. That's really good to hear. It makes my job easy when everybody's happy. I'm glad I did it. It was very much a leap of faith."

Orr has a bachelor's degree in environmental science from Concordia University in Wisconsin and an undergraduate certificate in turfgrass science and management from Penn State. Over the course of her career. she has worked not only in golf but also in baseball for the Triple-A Buffalo Bisons and Omaha Storm Chasers. Appearing on the Wonderful Women of Golf podcast with host Rick Woelfel, Orr explains why she decided to focus on golf.

"I feel like ballfields are so repetitive," she says. "You're doing the exact thing every day. There's not a lot of variety. A small crew, a small area. And I feel like with golf courses you never have the same day twice. A large crew, a large area, always. It's much more enjoyable for me."

At Shadow Ridge, Orr leads a crew of 22 during the peak season—nine of them full-timers. She is very much a hands-on leader.

"That is what I enjoy," she says. "I love running equipment. And that is kind of why being the head super I prefer to be on the scene. I bring my office on my cart with me and my notebook is always with me, because I don't enjoy being in my office. I want to be out with the crew. I love mowing fairways. I try to get on every piece of equipment as much as I can. Because if you're not doing it, you're not seeing it.

"I think it's very important to get out with the crew. Because you need to see everything from every angle, every point of view."

Orr attended the GCSAA's Women's Leadership Academy this past November.

"I forget they actually exist," she says about other women working in the industry. "When someone introduces themselves and says, 'I'm a female superintendent out in California,' and it's a female, my age, I almost can't believe it.

"It was mind-blowing to me to walk into a room and have 30 other women who are also in the industry with the same feelings as you, who have had the same experiences as you. It was awesome. It was a once-in-a-lifetime experience, and I hope I can go every year."

Orr is looking forward to volunteering at the 2025 U.S. Women's Open at Erin Hills. In the meantime, she has plenty to keep her busy at Shadow Ridge. She notes how the industry has evolved. She thinks back to earlier in her career when some of the men she supervised were uncomfortable working under a woman.

"They've never seen it and they're going to push back a little bit," she says. "In my younger years, that really bothered me. Now that I'm older, I've got some thick skin. And, if you don't like it, you can go." 🗸



They've never seen it and they're going to push back a little bit. In my younger years, that really bothered me. Now that I'm older, I've got some thick skin. And, if you don't like it, you can go."









## Way beyond fertilizer.





## Minerals in liquid form

How California's PGA WEST is decreasing water usage through testing a liquid binder solution.

water conservation testing technology based on Desert Control's liquid natural mineral.

PGA WEST is home to five resort courses and four private courses. Arnold Palmer, Jack Nicklaus, Greg Norman, Tom Weiskopf and Pete Dye have all left their architectural touch on the courses. None of those famed architects likely ever imagined the creative solutions being devised to reduce inputs at PGA WEST.

amed PGA WEST in La Quinta, California, is taking a step toward

Liquid natural mineral is a liquid inorganic static binder solution applied through the irrigation system. The solution binds soil particles by improving water holding capacity in sandy soil, holding water in the roots for extended stretches. Improving water-holding time decreases water usage, which in turn lowers irrigation needs for the area. With one

application, the product, certified by the USDA as organic due to sustainable agriculture practices and organic growth, lasts several years.

Kevin Neal, business development lead for Desert Control, contacted PGA WEST superintendent Nicholas Hoisington in May 2024, and the pair agreed to a trial run with the product on a tee box. Hoisington and his crew have been slowly decreasing the

amount of water applied to the area.

Since applying the solution, water usage for the area has decreased by 25 percent. The change won't be noticeable to golfers' eyes. "From a golfer's standpoint, there will not be a difference in playing quality," Hoisington says. "The product's goal and benefit is to reduce water use while maintaining a high-level playable surface."

In California, which

endures frequent droughts, water conservation in any capacity is important. "Water conservation is a huge topic, and there's been water shortages and water rationing has occurred," Neal says. "Working with all the various agencies and people, bringing them together, it was obvious that the golf course industry is the one that everyone can look at and keep on the front page. So, creating water conservation in golf is super important."

Liquid natural mineral is just one stride PGA WEST has made in its water-saving efforts. To review water usage, Hoisington and his team have com-

pleted irrigation audits, reviewed water feeds and system ages, and are planning for irrigation system and pump house improvements in the future. Proper irrigation systems require less electricity, pump water more efficiently and maintain pressure to enhance distribution uniformity.

"(We're) really looking down at the nuts and bolts of things and improving what we have and then utilizing new technology," Hoisington says, "whether it's wetting agents or looking at Desert Control products to help on the chemical side of things."

Distribution uniformity is a measurement that determines whether plants are receiving the same amount of water in an area. PGA WEST is currently exploring expanding the liquid natural mineral applications to a larger scale, using it on areas with poor distribution uniformity. Numerous reasons cause poor distribution uniformity, including pressure or infrastructurebased issues.

Decreasing water usage on a golf course remains a necessity.

"Twenty-five to 30 percent water savings is pretty significant for an industry that relies on irrigation for its livelihood," Neal says.



Kelsie Horner is Golf Course Industry's assistant editor. To submit ideas about conservation-focused programs or actions at your course, email her at khorner@gie.net.

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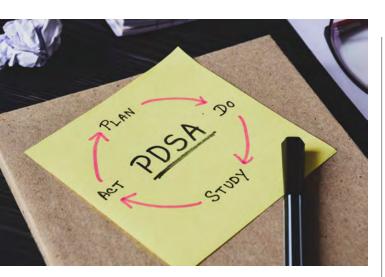
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### PDSA AND YOU

e all want to get better. We have a built-in desire to make today better than yesterday. If that were not true, bookstores would not have aisles filled with self-help volumes, there would be no golf teaching professionals and golf course superintendents would work 35-hour weeks.

It's what's known as continuous improvement. The Japanese gave it a name: kaizen, which translates to "change for the better." It's a philosophy based on the idea that there's always room for improvement, even when everything seems to be humming along just fine.

Our society, economy and markets, not to mention owners, boards and managers, demand nothing less. If we're not continually improving, we're stuck in neutral and possibly slipping into reverse.

Ask most experts their view of continuous improvement and they'll prescribe a process that leads to sustained high-performance founded on three actions: planning, doing and evaluating. This process, often called PDSA (plan/do/study/act), is credited to management consulting guru W. Edwards Deming. But superintendents and their teams need not be academics like Deming to adopt and benefit from PDSA. They simply need your guidance and the opportunity to participate in the process.

#### **PLANNING**

What do you want to improve in 2025? Better playing surfaces? Shorter recovery times in cultural practices? Improved employee satisfaction? Planning is the spark that lights the fire for staff participation and eventual buy-in. Here are three planning keys for superintendents launching the continuous improvement process:

• Be inclusive. Empowering your team will yield the best results. Sometimes staff members lacking formal education can be the most valuable. Don't exclude your people. Enable them to take

- ownership of continually doing better work. It is the rare soul who does not want to do his or work better next time.
- **Be patient.** One reason that process improvement is labeled "continuous" is because one is never finished getting better. As Nike proclaims, "There is no finish line." It is a journey that is its own reward. The longest and most arduous step is the first one, so take the time and effort to get everyone involved. Patience also plays into the continuity of improving on results. Staff members are watching you for leadership. Show them that you are not only tenacious and determined, but also patient in pursuit of improvement, willing to overcome frustration and abide short-term failure in the interest of longterm success.
- Be right. Your efforts are meant to accelerate improvement. So "being right" requires that you are learning from "being wrong" more than once. Keep your team dedicated to the tenacity required to improve.

#### **DOING**

Establish general agreement among your team and put the ideas to work. Establish goals and objectives upfront, along with deadlines and approaches. This is a critical step to establish a platform for measurable results. Actually doing the work in a process-driven manner encourages everyone to be a doer, dedicated to making your course and facility better.

In some cases, your team

may choose multiple approaches for the work that needs doing. Use your scientific training to establish the quantifiable results that are being sought. See that everyone knows how results will be evaluated before you begin testing.

#### **EVALUATING**

At the end of a round of golf, there is a number we achieved. We post that number and look for ways to lower it the next time out. Our work is also measurable. By whatever metrics we choose - or are chosen for us — we have the opportunity to keep score, evaluate our progress and decide how we could do a better job tomorrow, next week, next month and in the coming year. There are several ways to move analysis to action:

- · Small changes: Improvements are based on incremental rather than radical change, an approach that can also prove more cost effective.
- Homegrown ideas: The ideas come from the talents of the existing workforce, as opposed to using research, consultants or equipment — another way to lower costs.
- Staff ownership: Every member of your staff should continually be seeking ways to improve their own performance. This helps encourage staff to own their work. It can also help reinforce teamwork and improve motivation.

We all want to get better. And it seems the best way to do that is by working at it step by step, day by day. As Mark Twain once observed, "Continuous improvement is better than delayed perfection."



HENRY DELOZIER is a partner at GGA Partners, trusted advisors and thought leaders. He is currently Chairman of the Board of Directors of Audubon International.



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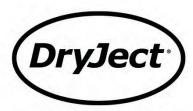


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TECHNOLOGY, INNOVATION, INCREASED CONDITIONING DEMANDS AND SUPPLY CHAINS ARE SWIFTLY ALTERING THE EQUIPMENT SIDE OF THE INDUSTRY. TERRY BUCHEN, MG, KEEPS PACE BY UPDATING HIS MAINTENANCE REPLACEMENT AND LIFE EXPECTANCY GUIDELINES.

ow long maintenance equipment lasts before it is replaced depends on many factors, including usage frequency throughout the year, climatic conditions, preventative maintenance programs, employee care when operating equipment, and whether the equipment is stored inside or outside in sunlight and moisture. The accompanying life expectancy chart shows estimated guidelines for equipment replacement in a range of years, knowing that some equipment will last longer than planned and other equipment will need to be replaced sooner than expected. The following are some important items requiring more explanation than what's listed in the chart.

#### **EQUIPMENT MANAGERS AND ASSISTANT** MECHANICS/TECHNICIANS

The equipment manager is the most important person for successfully operating a preventative equipment maintenance program. The GCSAA's successful Equipment Management Certificate Program's (EMCP) Level 1 and Level 2 curriculum must first be completed before the Certified Turf Equipment Manager (CTEM) status can be achieved.

Computer Maintenance Management Software (CMMS) from various companies provides equipment maintenance scheduling, assignments, labor tracking, servicing, documents and history, parts ordering and inventory, proactive maintenance notifications, fleet health monitoring, and equipment location tracking. GCSAA Equipment Management Resources are also a great reference tool.

On an 18-hole facility, it's extremely important to have not only the equipment manager but an assistant mechanic/technician on staff. That person is typically responsible for performing routine preventative maintenance servicing, along with grinding, lapping and other tasks. The equipment manager executes repairs, orders parts and keeps records, grinds equipment, trains employees, and guides the assistant mechanic/technician.

It's virtually impossible for the equipment manager to operate at an 18-hole venue without an assistant mechanic/technician because new electric, hybrid, autonomous and robotic technologies, and expanded equipment inventories are too much for one individual to handle. Additional repair parts also should be kept in inventory because of supply-chain issues and concerns. Attending service schools provided by the local distributor or equipment manufacturer during the off-season is vital continuing education for both individuals.

#### CAPITAL EQUIPMENT REPLACEMENT **PROGRAMS/CAPITAL RESERVE** BUDGETING

Superintendents have graduated from a five-year to a 10-year capital equipment replacement program, which is typically updated annually. Capital reserve budgeting is then executed by setting aside funds to help pay for purchased or leased equipment. With the supply-chain issues and concerns still in the "backorder" mode, superintendents must order new replacement equipment or new technology equipment at least 18 to 24 months in advance — and hope it will be delivered when forecasted. Superintendents also like to provide the original and current expected life on their maintenance equipment inventories, updated annually, for additional documentation for the budget process.

Capital equipment replacement budget standards for the golf industry typically include 15 to 20 percent per year of the total equipment inventory replacement value, or 20 to 25 percent of the annual golf maintenance operating budget per year.

Superintendents typically prefer leasing all equipment under a Fair Market Value (FMV) lease arrangement when it is used on a daily, regular high-use basis and then totally replacing the equipment after the three- to six-year term expires. Greens, tees, collars, approach, fairway and rough mowers, riding bunker rakes, sprayers, turf vehicles, and topdressers comprise this group.

A full payout (\$1 buyout lease), where the equipment is owned at the expiration of the lease, is typically not preferred because this high-use equipment has reached its life expectancy and should be replaced instead—except for possibly keeping a few select equipment for other purposes, such as mowers used after verticutting and topdressing, and some as a backup contingency plan.

Lease payments should not be placed on the golf maintenance operating budget, as they are obviously capital expense items placed on an operating budget, but it is commonly done for accounting purposes because leased equipment cannot typically be depreciated. This practice noticeably increases the operating budget, making the numbers deceptive to course officials because of the added expense. Lease payments should be placed on a G&A account or separate account because they are capital expense items, not maintenance operational budget expenses.

Equipment used less frequently with a longer life expectancy, such as tractors, trucks, skid-steer loaders, fairway aerifiers and topdressers, trenchers/backhoes, chippers and dump trailers, are typically purchased. This equipment is typically put on a capital equipment replacement budget that can be depreciated.

New tech and additional equipment acquired in an FMV Lease, a full-payout lease or purchased can depend on its frequency of use and the financial arrangements desired by the course. There should be a minimum of two pieces of the same equipment for each maintained area, as a backup is used during repairs while waiting for repair parts or when equipment is being serviced.

AI-powered drone aerial equipment

monitors and sprayers, autonomous and robotic mowers, GPS-guided sprayers, hybrid- and lithium-powered mowers and turf vehicles; e-walk behind and e-triplex greens mowers, and e-hovercraft mowers are among the emerging tech available to golf courses, with more exciting developments on the horizon.

#### **HOUR METERS**

There are two "hour-meter standards" to determine their "car miles equivalent" traveled so that course officials can better understand the relevance and true meaning of hour-meter readings.

Turf equipment: One hour equals approximately 80 miles on a car; 3,000 to 4,000 hours equals 240,000 to 320,000 miles on a car.

Turf equipment engines: 500 Hours equals 100,000 car miles; 1,000 hours equals 200,000 car miles; 3,000 hours equals 300,000 car miles equivalent.

#### **NOISE ORDINANCES**

Noise ordinances, especially those found on housing development-type courses, are becoming stricter and enforced more frequently. Electric- and lithium-powered equipment has made great strides in toning down the decibel level, making for happier homeowners.

#### **EQUIPMENT STORAGE**

All maintenance equipment should have enclosed and covered storage (if necessary) to keep damaging sunlight and moisture from shortening the life expectancy of equipment in all three climatic zones.

#### PHOTO/VIDEO JOURNAL

Individual photos of each piece of equipment and/or a video journal should be compiled annually to help prove to insurance companies, if necessary, that it was owned/leased by the club and in inventory. They should be secured and stored in a safe, fireproof environment.

Terry Buchen, MG, is president of Golf Agronomy International, GCSAA life member and author of the popular Travels with Terry column in Golf Course Industry.



- 1. Equipment's life expectancy depends on the frequency of use, climatic conditions, preventative maintenance programs, employee care when operating the equipment and storage setup.
- **2.** The life expectancy chart for all three U.S. climatic zones provides guidelines when equipment normally should be replaced. The projections for an 18-hole course in a range of years is when it should be replaced before it becomes cost prohibitive to keep repairing it.
- 3. Equipment inventories have expanded over the years because of golfers demanding improved playing conditioning standards. Capital equipment replacement budgets, including adding new technology equipment and 10-year capital reserve budgeting, updated annually, is now the standard.
- 4. Leased capital maintenance equipment monthly payments should not be placed on the golf maintenance operating budget, as they are capital expense items. They should be placed on a G&A account or another separate account.
- **5.** Having only one equipment manager to maintain an 18-hole course's equipment inventory is nearly impossible. With the expanded inventories and technological advances in equipment, an assistant mechanic/technician is definitely required.
- **6.** Equipment sitting outside in the elements getting damaged from sunlight and moisture significantly shortens the life expectancy and costs the course more money each year. Enclosed equipment storage and additional covered storage is a must.
- **7.** Noise ordinances are becoming more stringent and enforced, and equipment manufacturers are offering more electrically operated equipment every year to bring the decibel levels noticeably lower.
- **E.** Maintenance equipment typically costs more to maintain beginning between the second and third year after acquisition. Repair operating budgets should reflect the increased costs, as necessary and appropriate.
- **9.** Additional repair parts should be kept in inventory because of the supply-chain issues and concerns about when they will be delivered.
- 10. Ordering new or replacement equipment and new technology equipment must be accomplished a minimum of 18 to 24 months in advance because of supply-chain issues and concerns — and hopefully it will be delivered when forecasted.

TERRY BUCHEN'S UPDATED MAINTENANCE EQUIPMENT AND LIFE EXPECTANCY GUIDELINES

#### GREENS

Equipment	Cool-Season Climate	Transition Zone Climate	Warm-Season Climate	
Walk-behind greens mowers	4–6 years	5–6 years	4–5 years	
Lithium/hybrid/gas; groomer attachments; front rollers; turf utility vehicles; trailers				
Triplex greens mowers	4–6 years	5–6 years	4–5 years	
Lithium/hybrid/gas/diesel; autonom	ous/robotic; groomer attachments;	verticut attachments; speed rollers (	3); spikers; spare cutting units	
Dew whippers	3–4 years	2–3 years	1–2 years	
Walk-behind aerifiers	10-12 years	8–10 years	6-8 years	
Deep-tine aerifiers	8–10 years	7–8 years	5–7 years	
Core harvesters	7–8 years	6–7 years	5-6 years	
Sweepers/vacuums	8–10 years	7–8 years	5–7 years	
Plug pushers	8–10 years	7–8 years	5–7 years	
Water-inject aerifiers	8–10 years	7–8 years	5–7 years	
Deep verticut with topdressers	10–12 years	8–10 years	7–8 years	
Slit/spike seeders	10–12 years	8–10 years	7–8 years	
Topdressing machines	6–9 years	6-8 years	5–7 years	
Drag brushes/mats	7–8 years	6–7 years	5–6 years	
Sprayers	4–6 years	5–6 years	4–5 years	
	Hooded booms; walk-behir	nd boom; GPS/drone		
Spreaders-rotary/drops	5–7 years	5–6 years	4–5 years	
Tournament speed rollers	4–7 years	5-6 years	4–5 years	
Electric/gas				
Soil profile blower/vacuum	8–10 years	7–8 years	5–7 years	
Oscillating fans	7–8 years	6–7 years	5–7 years	
Roller squeegees	7–8 years	6–7 years	5–6 years	
Moisture meters	5–7 years	4–6 years	3–5 years	

#### COLLARS

Equipment	Cool-Season Climate	Transition Zone Climate	Warm-Season Climate	
Walk-behind TCA mowers	5–7 years	5–6 years	4–5 years	
Utility vehicles; trailers				
Triplex TCA mowers	5–7 years	5–6 years	4–5 years	
Spare cutting units				

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Equipment	Cool-Season Climate	Transition Zone Climate	Warm-Season Climate	
Walk-behind TCA mowers	5–7 years	5–6 years	4–5 years	
Utility vehicles; trailers				
Triplex TCA mowers	5–7 years	5–6 years	4–5 years	
Spare cutting units				

#### **FAIRWAYS**

Equipment	Cool-Season Climate	Transition Zone Climate	Warm-Season Climate
Fairway mowers	5–7 years	5–6 years	4–5 years
Lithium/hybrid/diesel	; autonomous/robotic; verticut attac	chments; groomer attachments; spar	e cutting units
Clipping dispersal machine	15–20 years	12–16 years	10–12 years
Large fairway aerifiers	8–10 years	7–8 years	6–7 years
Deep-tine aerifiers	8–10 years	7–8 years	6–7 years
	Sweepers/vacuums; p	lug pulverizers	
Large fairway topdressers	7–8 years	6–7 years	5–6 years
	Drag brushes/mats; m	aterial handling	
Large fertilizer spreaders	10-12 years	9–11 years	8-10 years
Deep verticut machines	8–10 years	7–8 years	6–7 years
Drill/verticut seeders	8–10 years	7–8 years	6–7 years
Drop seeders	10-12 years	9–11 years	8-10 years
Large sprayers	7–8 years	6–7 years	5–6 years
	GPS; hooded booms; fo	amer attachment	
Fairway pull-type rollers	15–20 years	15–20 years	15–18 years
Fairway self-propelled rollers	9–10 years	8–9 years	7–8 years
Blowers-pull type	7–8 years	6–7 years	5–6 years
Blowers-PTO	10-12 years	9–11 years	8–10 years

#### **APPROACHES**

Equipment	Cool-Season Climate	Transition Zone Climate	Warm-Season Climate		
Walk-behind TCA mowers	5–7 years	5–6 years	4–5 years		
	Utility vehicles; trailers				
Triplex TCA mowers	5–7 years	5–6 years	4–5 years		
Spare cutting units					
Fairway mowers	5–7 years	5–6 years	4–5 years		

#### **INTERMEDIATE ROUGHS/WALK PATHS**

Equipment	Cool-Season Climate	Transition Zone Climate	Warm-Season Climate	
Utility triplex reel mowers	6–7 years	5–6 years	5–6 years	
Spare cutting units				

#### MAINTAINED ROUGHS

Equipment	Cool-Season Climate	Transition Zone Climate	Warm-Season Climate	
Multi-deck rough mowers	6–8 years	6–7 years	5–6 years	
	Autonomous/	robotic		
Utility rough triplex mowers	6–8 years	6–7 years	5–6 years	
	Reel/rota	ry		
Zero-turn rotary mowers	6–8 years	6–7 years	5–6 years	
Hovercraft rotary mowers	2–3 years	1–3 years	1–2 years	
Electric/gas				
String-line trimmers	2–3 years	1–3 years	1–2 years	
Gas/electric				

#### BUNKERS

Equipment	Cool-Season Climate	Transition Zone Climate	Warm-Season Climate
Riding bunker rake 3WD	6–7 years	5–6 years	4–5 years
	Gas/electric; spiker attachmen	t; plow; landscape box	
Hand maintenance rakes	2–3 years	1–3 years	1–2 years
Stick edger	2–3 years	1–3 years	1–2 years
Reciprocator edgers	2–3 years	1–3 years	1–2 years
String line trimmers	2–3 years	1–3 years	1–2 years
Gas/electric			
Trash pump/trailer	8–10 years	7–8 years	6–7 years

#### LARGE EQUIPMENT

Equipment	Cool-Season Climate	Transition Zone Climate	Warm-Season Climate
Tractors with PTO	18-24 years	17–22 years	15-20 years
Tractor loader/backhoe	20–25 Years	18-23 Years	16-20 Years
Skid-steer loader	10-13 years	8–11 years	7–10 years
	Forklift; backhoe; auger;	trencher; broom	
Mini excavator trackhoe	15–17 years	12–15 years	10–12 years
Dump truck	15–17 years	12–15 years	10–12 years
Pickup truck	12–15 years	11–12 years	10-11 years
	Snow plo	W	
Dump trailers	12–15 years	11–12 years	10-11 years
Highway flatbed trailers	12–15 years	10–12 years	9–11 years
Hydromulcher	8–10 years	7–9 years	6–8 years
Trencher/backhoe	8–10 years	7–9 years	6–8 years
Chipper	10-12 years	9–11 years	8-10 years
Boom tree trimming truck	16–18 years	14–16 years	14–16 years
Superintendent vehicle (leased)	4–5 years	4–5 years	4–5 years
Superintendent vehicle	4-6 years	4-6 years	4–6 years
Buy/vehicle allowance			

#### **SMALL EQUIPMENT**

Equipment	Cool-Season Climate	Transition Zone Climate	Warm-Season Climate
Dump utility vehicles	5–7 years	5–6 years	4–5 years
Equipment manager's vehicle	6–8 years	6–7 years	5–6 years
	Generator; air compr	ressor; welder	
Irrigation technician's vehicle	5–7 years	5–6 years	4–5 years
Riding utility roller	12–15 years	12–14 years	11–13 years
Sod cutters	12–15 years	12–14 years	11–13 years
Portable generator	8–9 years	7–8 years	6–7 years
Landscape scraper box	15–17 years	14–15 years	12–13 years
Landscape harrow	15–17 years	14–15 years	12–13 years
Chainsaws	3–5 years	3–4 years	2-4 years
Motorized pole saws	5–7 years	5–6 years	3–5 years
Tree climbing equipment	10-12 years	9–10 years	8-10 years
12-volt sprayers	7–8 years	6–7 years	5-6 years
Backpack sprayers	5–7 years	5–6 years	3–5 years
Backpack blowers	5–7 years	5–6 years	4–5 years
Sprinkler head leveler	8–10 years	7–9 years	6–7 years
Handheld blowers	5–7 years	5–6 years	4–5 years
Firewood splitter	7–9 years	6–8 years	5–7 years
Irrigation wire locator	8–10 years	8–9 years	7–8 years
Irrigation fault finder	8–10 years	8–9 years	7–8 years
Irrigation PVC pipe locator	8–10 years	8–9 years	7–8 years

#### MISCELLANEOUS EQUIPMENT

Equipment	Cool-Season Climate	Transition Zone Climate	Warm-Season Climate
Rowboat	20–25 years	20–25 years	18–25 years
	Oars; trolling	motor	
Metal detector	7–8 years	6–7 years	5–6 years
Portable GPS device	7–8 years	6–7 years	5–6 years
Large portable water wagon	20–25 years	20–25 years	18-25 years
Push-type rotary mowers	4-6 years	4–5 years	3–4 years
Self-propelled rotary mowers	4-6 years	4–5 years	3-4 years
Smartphones (irrigation)	3–5 years	2–4 years	2–3 years
Tablets (irrigation)	3–5 years	2–4 years	2–3 years
Two-way radios (irrigation)	3–5 years	2-4 years	2–3 years
Reel grinders	7–9 years	6–8 years	6–8 years
Bedknife grinders	7–9 years	6–8 years	6–8 years



CALIFORNIA WANTS TO REACH CARBON NEUTRALITY WITHIN THE NEXT 20 YEARS, WHICH MEANS TURF PROS IN THE STATE ARE PREPPING FOR NO NOISE, NO GAS ... AND MANY POTENTIAL PROBLEMS. WHAT CAN YOU LEARN FROM THEIR EXPERIENCES?

### By Judd Spicer

n an aggressive aim to eliminate the fossil fuel pollution of its state's omnipresent landscape tools — which outnumber its cars — the California legislature passed AB-1346 back in 2021. Enacted at the onset of 2024, the law prohibits the in-state sale of small off-road engines (SOREs) at or below 25 horsepower. Per the golf and landscape industries, tools under said governance include mowers, blowers, string trimmers and chainsaws. The law, it needs to be clarified, prohibits

new sales of SOREs, but not use.

Considering that running a gas-powered leaf blower for an hour is estimated to equal the pollution of driving a 2016 Toyota Camry 1,100 miles, the newly implemented law serves as palpable seed for the state's ambitious aims to phase out gas-powered engines by 2035 and to ultimately achieve carbon neutrality by 2045.

In real time, however, the balance of ambition and application is finding California superintendents rubbing temples as much as plugging in.

#### THE SOUND (AND AILS) OF **SILENCE**

The "symphony of the desert" may indeed be on the precipice of a new opus, though the present-day movement is one scored with changes causing some frustration of chord.

Across the golf-heavy spread of the Coachella Valley (known globally as "Palm Springs"), maintaining the region's 120-course bounty - and oft-attached communal-style livinghas long echoed with the ubiquitous hum of teeming, gas-powered engines.

Since the passage of AB-1346, many if not most of the valley's golf and residential properties are undoubtedly a-scramble when it comes to finding electric replacements for SOREs and/or picking over what inventory remains of such gas-powered tools at or under 25 horsepower.

A more select collection of the region's properties plugged in with foresight.

"In 2021, when we saw what was happening with this, we were approached by a solar panel company and we decided it was a good time to offset our rising electricity costs," says Jared Stanek, director of agronomy at the 36 high-end holes of Toscana Country Club in Indian Wells. "So, we put this infrastructure in place and, as a byproduct, I had them pull a whole bunch of new conduits underneath our building for future electric expansion for charging."

Working off a high-voltage solar charging system, Toscana's maintenance carts are pulled in during what would be the most expensive time of day (SoCal Edison's "super on-peak pricing"). In turn, what was once cost-prohibitive is now charging on peak solar generation time.

In concert with maintenance carts, Toscana concurrently acquired a fleet of walk-behind electric greens mowers. "They're fabulous," Stanek says. "They perform every bit as well, if not better, than the gas-powered fleet."



Nearby, across the nine-course public and private spread of PGA WEST in La Quinta, the grounds known as "The Western Home of Golf in America" eye the value of the prescience presented by Stanek. "A lot of us have older shops, so electrical upgrades for the new electric equipment is necessary," says Brian Sullivan, director of agronomy at PGA WEST.

With electronic prep in-process, PGA WEST's grounds are seeing the early benefits of electric autonomy. "I've got a six-acre lawn that I'm mowing right now with an autonomous mower," Sullivan adds. "We've been running it at night and the cut is unbelievable."

In the near future, Sullivan is planning to use autonomous mowers across the grounds' driving ranges.

"I don't think anybody is looking at it like this is all horrible," he says of the new law. "If you did, then you'd just be behind the times. I think we're kind of embracing the electric, and these new technologies."

#### LITTLE TOOLS, BIG ISSUES

While autonomous tools and renewable energy sources are indeed the future of agronomy, the present presents serious ails.

Though Stanek had the foresight of creating a solar-powered charging station for small tools, SOREs have proved an instant sore spot. In concert with his other referenced purchases, he also bought two top-of-the-line electric walk-behind mowers.

"And I got 15 minutes from these mowers," he says. "That's also what we've come to expect from the hand blowers. You get 15 minutes per charge. It's been a huge issue. These tools, they're fine for a homeowners' setting, but they're absolutely not commercial-grade tools. These are tools that any commercial landscaper, anybody on a golf course - you need these tools for seven or eight hours a day."

Stanek adds that the present meager battery lives of SOREs don't make for a workable alternative. "I was expecting that the functionality of the batteries would be behind the gas (powered), but I had no idea how bad it'd be. I was expecting I'd get around an hour of battery life — that was my worst-case mental scenario. But when we realized it was 15 minutes, that's not even close. It's not even feasible."

▲ Golden State golf courses might soon be filled completely with electric vehicles - changing how turf pros accomplish daily tasks

## **GAS-POWERED** TO SORE REGULATIONS:

- Chainsaws < 45 cc
- Edgers
- · Hedge trimmers
- Lawn mowers
- Leaf blowers
- · Log splitters
- Portable generators
- · Pressure washers
- · Riding mowers
- · String trimmers

#### GAS-POWERED **TO SORE REGULATIONS**

- Air compressors
- Blade-capable brush cutters/clearing saws ≥ 40 cc
- Chainsaws ≥ 45 cc
- Chippers
- · Light towers
- Pumps ≥ 40 cc
- · Saws: concrete, masonry, cutoff
- Shredders/grinders
- · Stationary generators
- Stump grinders
- Welders

Source: California Air Resources Board

Throughout these desert sands and far across the Golden State, such qualms run with the alacrity of 13-stimped greens.

"Superintendents have embraced many pieces of equipment, particularly some of the autonomous mowers, and these have the potential to be game-changing for the golf industry," says Jeff Jensen, Southwest Regional field staff representative for the GCSAA. "However, superintendents are struggling with some pieces of smaller battery-operated equipment that are not yet fit for intended commercial use. Additionally, some pieces of 25 horsepower-and-under gasoline-powered equipment like aerators, bunker rakes and small spray units are not being produced or readily available in zero-emission alternatives."

Sullivan agrees: "There's, of course, so much equipment that we use which is under 25 horsepower: green mowers, aerifiers, sprayers. And there's nothing really on the market which is more efficient to replace them, so that's a conundrum."

Superintendents are ready for the benefits of SOREs, but SOREs aren't yet ready for superintendents.

"I think all of us are in favor of technologies that are going to be good for the environment and create less noise, but battery technologies have not progressed as much as we would like," says Christopher Bien, head superintendent at Desert Willow Golf Resort in Palm Desert and president of the Hi-Lo Desert Chapter of the GCSAA. "Even with that being said, I and many others have gone that route with handheld blowers, weed eaters, etc."

Unfit tools create potentially hazardous risks: "If you go up a large tree with an electric chainsaw, you're gonna hurt somebody," Sullivan says. "They're not strong enough, they're not gonna last long enough, and the last thing you want is to be in the middle of a cut on a large branch and the equipment isn't up to the task."

Stanek is good at planning. He's also pretty good at math.

"At 15 minutes per charge, when each of these batteries cost \$79.99 - and you get two batteries on the blower—how many of the \$80 batteries are you going to need?" he asks. "And am I going to then require a diesel generator on everybody's cart to charge the batteries as they're going so the guys can continue to work? These are so far behind the expectations of a commercial setting. I can run a blower or string trimmer all day on \$5 of gas. And now you want me to have, what, 30 \$80 batteries that I have to charge every night? And if you're the average everyday landscaper, how can you afford these? Are you gonna have \$1,000 worth of batteries in your truck that you'll need to charge every day?"

Sullivan also has a calculator.

"If you've got a machine where the engine goes down—and maybe it's a \$15,000 machine with a \$500 engine — and there's no engine in sight," he says. "We can't buy that engine under 25 horsepower in California. So that can be a



little frustrating."

As for the \$30 million in incentive programs for small engines via the California State Legislature? Yeah ... those funds weren't for golf courses.

"This was a major point of contention for the golf industry and one we fought and failed to obtain," Jensen says. "We support the creation and funding of product rebate, tax incentive and low-interest loan programs that help offset the cost of new battery-powered equipment purchases - especially when conversion is mandated by law or, when due to regulation, the ability to purchase gasoline-powered alternatives has been restricted or eliminated. The costs of commercial-grade battery-powered equipment can far exceed their gasoline equivalents, with industry research finding that zero-emissions equipment can have an upfront cost of as much as two to four times their gas counterparts."

#### **HOPES AND REALITIES**

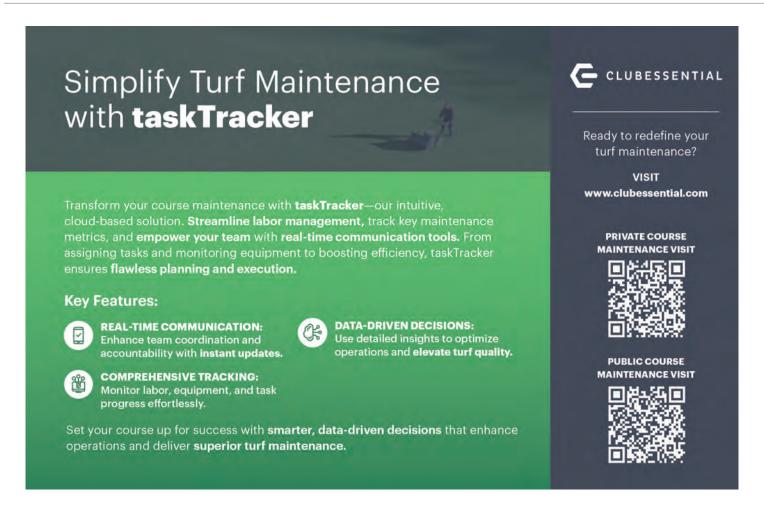
While all parties concur that California governance has its heart in the proper place, further agreement comes via the belief that the feasibility of both application and marketplace is still a year away, or perhaps even two.

"Superintendents recognize that the green industry will continue to move to lines of zero-emission equipment in the future, and that these lines offer numerous benefits," Jensen says, "including healthier working environments, lower maintenance costs, reduced noise, reduced environmental impacts and reduced fuel costs."

And yet, current infrastructure is simply not yet in place for success with SOREs. The tools are not repairable in-house and parts catalogs aren't available for quick fixes.

"Most of these tools, they can't be repaired," Stanek says. "If something goes wrong with one of these blowers or one of these trimmers, there's a little electric motor inside of them with no repairable parts. You basically have to trash the whole thing, or you send it back in for warranty — which is what we've been doing — and they don't have the (replaceable) unit. Sometimes they'll send you out a demo unit to hold you over for a few weeks and then eventually get out the new unit. And you can't tell me that's reducing our carbon emissions, when they basically just throw an entire blower in the dump."

Such marketplace unreadiness resulted in a 2024 scramble for what



SOREs remained for sale, along with the concurrent need to preserve the small-engine tools superintendents already had in-house.

"We've all basically scrambled to get as many gas-powered tools in the shed as we can," Stanek says. "People have stockpiled like crazy. Once these tools are gone, they're gone. And then we'll be forced to come up with a system that works and that's cost-effective with tools that aren't viable."

Balancing the jobs of New vs. Old makes for a delicate dance.

"Getting replacement tools, they're difficult to find," Sullivan says. "Our gas golf carts, we need those to tow equipment, because the electrics can't make it through the whole day—and if those engines go down, so does the piece of equipment. It forces you to have two electric carts to do the job of

what one gas vehicle can do."

The flux of electric and gas, with scales of pros and cons, is occurring in real time.

"As a positive, if an employee can bring an (autonomous) mower out to mow greens and he is free to repair ball marks, rake bunkers and carry out the attention-to-detail tasks automation cannot accomplish, it's a real win," Sullivan says. "But it can go the opposite way, too. Say we'll have the (electric) green sprayer with somebody walking behind with a 'wield' in front of the applicator — which isn't ideal, because then the applicator is walking through the chemical instead of spraying it behind him."

One could muse that the clouded, present-day SOREs situation could—or indeed will—cause serious issues for a rack-rate track struggling with

resources. Might such a dire need for equipment create a black market with desperate superintendents traveling to border states for tools?

"Enforcement of the rule and buying equipment from neighboring states is a very gray area at the present time," Jensen says. "Technically, California has yet to receive a waiver from the EPA concerning the SORE regulations. It's been standard practice to implement rules first and secure waivers from the EPA secondly for over 50 years." In January, the EPA approved the SORE waiver, along with other new environmental rules. "The potential for this to end up in court," Jensen says, "is very real."

Judd Spicer is a Palm Desert, California-based writer and senior Golf Course Industry contributor.





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### THE GRASS WILL ALWAYS BE GREENER

was one of about a million viewers who recently tuned into the debut of the TGL indoor golf league, backed by Tiger Woods and Rory McIlroy. That's not to say I stayed for the entire two-hour show, but I wanted to give it a chance. They lost me very early on, when in the opening commentary the hosts waxed poetic about how "the modern face of the game is forever changing" and how golf is entering a "new chapter."

That was the first rules violation of the night, the rule in question being the one that says, "People don't change golf, golf changes people."

Call it what you will, but TGL is not golf as it was meant to be. Yes, it had some entertainment value, with fans cheering, players mic'd up and, something that the PGA Tour golf sorely lacks — a faster pace. But I'm pretty confident that if he'd been at the SoFi Center watching the inaugural match, Old Tom Morris would have shaken his head and walked away, muttering to himself.

Tiger and Rory certainly aren't the first to try adapting golf to the times and the technology. But in my mind, the real point of any "new" form of golf — TGL, Topgolf, or any other gamification concept — is to make money. Remember Cayman balls? Disc golf? Footgolf? Eight-inch holes? On the upside, all such gimmicks might spark some interest and drive a few more people (and dollars) to the game; recent research from the National Golf Foundation seems to indicate that is, indeed, happening. But while they may prove to be effective "on-ramps" to the game we love, none of these variations are what real golf is all about.

Having the best players in the world tee it up in a programmed environment and turn a manmade Titleist into a pixel-produced image may encourage new audiences to try the game, something we should all support. But someone should tell these golf "gamers" that things are going to be very different and more difficult - when they step onto a real golf course.

And it's exactly those differences and difficulties that are to be appreciated and applauded. It's also where we, the course superintendents, wield our influence. Put another way, if we're not involved, it isn't golf.

New ideas and technological advances have their purpose, but no computer programmer can take our place.

Call me old-fashioned, a purist, or a curmudgeon, but golf is meant to be played outdoors. Mother Nature is always our real opponent: Some days she's on her game and throws everything she's got at us — wind, rain, heat, humidity, whatever — forcing us to bend both our brains and our brawn to the situation. The elements are elemental to the game.

Artificial surfaces may seem to offer a "realistic" experience, but that's not how a real golfer develops a touch and a feel for the game. Wake me up when The Open Championship installs faux grass from wall to wall.

At the same time technology is being used to make the game more relevant and more favorable to a younger audience, superintendents are being forcefed a steady diet of maintenance marvels like rider-less mowers, automated bunker raking, in-

tuitive irrigation systems and a phoneful of apps to run it all from our cart while making little to no noise and operating day or night. These advances are to be welcomed, particularly considering our labor situation. We track weather patterns weeks in advance, as well as use computer modeling and AI to track pests, disease, weed germination, irrigation and when to apply the appropriate pesticides and monitor growing degree days.

Use all the science you want, but you still need a human touch to monitor and prepare our outdoor playgrounds. Properly maintaining a golf course will always require just as much art and skill as apps and sensors. In fact, the more technology gets involved, the more we do with our heads, hands and heart becomes the big separator.

As the ultimate manager of playing conditions, you're the one who can control fairway and rough heights of cut, green speeds and bunker conditions. How you wield the power to control these factors can't just be based on computer chips but also must consider your audience, the time of year, finances and directives from your board. It's the human algorithm that makes it all work.

Keep the tech coming. But to those programmers interested in helping golf, can I maybe steer your efforts toward improving pace of play? Or player education?

Golf is not a game of perfect. A bunker is a hazard, all lies are not meant to be flat and one of the charms of the game is that it's hard. As well as innately human.

Let's keep it that way.



TIM MORAGHAN, principal, ASPIRE Golf (tmoraghan@aspire-golf.com). Follow Tim online at Golf Course Confidential at www.aspire-golf.com/, or on X at @TimMoraghan

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## Snow happens. And the tactical work for the superintendents and teams operating in coolweather regions must continue. Let's learn how your peers are maximizing months without golfers.

#### By Kelsie Horner

n many states, when the cold fronts hit, temperatures drop and chances of snow increase, the golfers go home, the course closes for the season and parttime summer staff is relieved of their duties. But the superintendent stays.

How do superintendents care for the course in the cold months? How do they spend their time and prepare for the next season? We talked to turf leaders in cool-weather regions to learn how they maximize the winter months.

At Glenwild Golf Club in Park City, Utah, the golf course opens for play from mid- to late May through October, weather dependent. Park City, found southeast of Salt Lake City, averages anywhere up to 32 inches of snowfall each month between November and March. Temperatures rarely reach above 44 degrees, and the average temperature sits at 35.9 degrees for the winter stretch. Glenwild is a private club with 325 members, cared for by director of agronomy Eric Feldhusen and team.

Feldhusen, an Oregon State University graduate, runs a small team of year-round employees during the winter months. A superintendent, three assistant superintendents, an irrigation technician, two equipment managers and a year-round employee maintain the grounds from October through May.

The day-to-day routines for the small team look different through the colder months than they do in the summer heat. Although the golf course is not in use during this time, the maintenance team is responsible for grooming the club's cross-country skiing trail. They also plow the clubhouse parking lots, complete shop projects and refurbish amenities.

The crew arrives at 6 each morning, when they check parking lots for snow and ice before touring the course. The property is home to about 200 elk and fencing is used to keep them off greens and sensitive areas. Part of the daily routine includes checking the fences for any stuck elk.

Following the fence checks, the team heads into the shop for project work or equipment maintenance. "I think it's all about planning," Feldhusen says. "We have a game plan for what we want to accomplish going into it."

Clearing snow is a common task for maintenance teams in cold-weather regions during the winter. Steve Brown, superintendent of Sylvania Country Club in northern Ohio, says his team also prioritizes snow and ice removal for parking lots and sidewalks as needed. Sylvania Country Club features a Willie Park Jr. parkland-style course.

For Brown and his staff, the winter brings project season. Renovations and projects occur in the clubhouse, maintenance facility and other important areas. "It's usually project season in the clubhouse because they're closed for a short period up there. We often pitch in with different things up there as far as small renovations or cleaning and different things. It's also a huge time to review everything from the previous year." The staff also takes time to clean and fix equipment.

With an 18-hole course and mountain vista views, Clear Creek Tahoe's director of greens and grounds Mike Cuniff and his staff transition from a golf course maintenance team to a snow removal team after the new year. Clear Creek Tahoe is in

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Nevada's Clear Creek Tahoe golf course admist the snow-covered mountains

Carson City, east of Lake Tahoe and less than an hour from the California-Nevada border. Snow totals for December and January average less than 5 inches. When needed. the maintenance team handles snow removal

for the club's amenities including the clubhouse, residential homes, the Twin Pines Lake and Ski House, guest houses and a restaurant. They carry eight staff members in the winter and 36 from April through October.

The cold months are also used as time to clean, repair and check each piece of equipment to prepare for the upcoming season. Just as the golf course needs to be kept up, so does the equipment.

Wintertime is a common period for professional development, education and planning. At Glenwild, the club partnered with Oregon State's turf certificate program to provide assistants and employees with opportunities for growth. The program is paid for by the club and team members complete it at their own pace, though everything must be finished within a year.

"It's something that helps educate my assistants and just broadens them agronomically and expands their knowledge," Feldhusen says.

Most importantly, the winter months are time for superintendents and maintenance staff to relax.

Around Lake Tahoe, Cuniff spends his free time skiing, with the occasional trip to warmer weather areas. He and his staff work a lighter schedule. "The wintertime is our time to plan for the next season. Catch our breath a little bit, work a bit of an abbreviated schedule, and just kind of get back to normal and take a little reprieve from the crazy golf season that we have."

The same goes for the staff at Glenwild. "The wintertime allows the team to refresh, recover from the season," Feldhusen says. "We get our time off. The guys only work four days a week.

It allows them to spend more time with their family. Or there are outdoor activities, which is a lot of skiing or whatever they like to do. It's a good time to kind of rest and recoup and recharge the batteries for us."

Feldhusen and his staff are fortunate to have 20 days of vacation time a year. "From Day 1, our employees get 20 days of vacation a year," he says. "Not probably industry standard, but we're very fortunate that we have a supportive membership."

For Brown, an Ohio State graduate, vacation time is maximized. He tries to fit in a family vacation and the occasional long weekend.

The winter months can be difficult. They are usually cold, lonely and not as fast paced as the warmer months. Cuniff recognizes the importance of slowing down.

"You need to learn to appreciate the downtime and realize that, sure, it's slower and there's no grass growing," he says, "but it's really the time of year where you have to take advantage of that slowness and reflect on your whole agronomic plan, your staffing plan, and really use that quiet time wisely to make sure that you're set up well for the for the upcoming season."

On those days when it's just too cold outside, spend your time with your family. Relax, read a book or continue educating yourself in the golf course industry. I

Kelsie Horner is Golf Course Industry's assistant editor.



play from late April to early October. Gunby Ranch is a 9-hole course found on flat land previously used for farming.

During the offseason, superintendent Nick Wolfe has taken to the sport of curling.

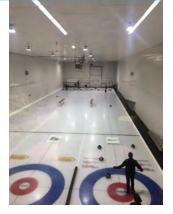
As a Level 2 curling instructor, Wolfe spends November through March working at a curling club, as his superintendent contract for the Debolt AG Society, which operates Gunby Ranch, is only seven months. At the club, he teaches and coaches curling students from four different schools.

"My job here is to build the curling club, try to get as many people curling as we can and keep that going," Wolfe says.

Working at the club helps prevent burnout from the golf course.

He recommends superintendents who work on the course year-round make the time to step away, take a vacation and get away from the turf.

"If you can find a happy spot where you can just relax, find it every day and just enjoy those moments," he suggests.





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# ACCESSIBLE

A past PGA Championship site in a tough growing environment is thriving by providing innovative playing options and programming for golfers of all abilities.

By Rick Woelfel

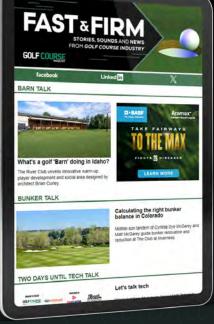
hree quarters of a century ago, Hermitage Country Club in Richmond, Virginia, was the center of the golf universe. The occasion was the 1949 PGA Championship, the 31st playing of the event.

Sam Snead claimed the title after defeating Johnny Palmer 3 and 1 in the 36-hole final. It was his second major championship that year; he had won the Masters seven weeks earlier. It marked the first time a player won the Masters and the PGA Championship in the same year.

Today, that same venue is attracting attention for different reasons. What was once Hermitage Country Club is now Belmont Golf Course. The First Tee-Greater Richmond operates the course.

Belmont is one of the most unique golf facilities in America. It features 12 regulation holes, six separate par-3 holes,

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GOLF COURSE



View of the starter shack, Little Bell par-3 course and The Ringer putting course at Belmont in Richmond, Virginia.

an 18-hole putting course, a driving range, a chipping green and two practice putting greens. The complex sits on the site where Hermitage Country Club once stood. The 12 regulation holes remain from A.W. Tillinghast's design, which was completed in 1916 and subsequently tweaked by Donald Ross in 1927.

In November of 1945, two months after the conclusion of World War II. the club hosted a PGA Tour event, the Richmond Invitational. Ben Hogan emerged victorious; his share of the purse was \$2,000 in war bonds.

Henrico County purchased the site in 1977 and, for a time, Hermitage was a successful public facility. It hosted 55,000 rounds in 1992. As rounds decreased and expenses rose, the county considered closing the course. Instead, it formed a partnership with First Tee-Greater Richmond, which eventually assumed ownership of the golf course and practice facilities.

What occurred was less a renovation than a transformation and evolution from a traditional daily-fee club to a portal to the game for golfers and aspiring golfers of all ages, experience and ability levels.

Scot Sherman from Love Golf Design oversaw the transformation. He recalls his reaction and that of Davis Love III and Mark Love when a private benefactor approached them with the idea. "We were like, 'Gosh, every city in America needs something just exactly like what you're describing." Sherman says. "It was the best way to preserve some, if not all, of the Tillinghast there."

First Tee took over operational control of the golf course on Jan. 1, 2020, and immediately began the renovation effort. First Tee now owns the property, although the county retains ownership of four tennis courts on site.

Once he was given the assignment, Sherman was charged with not only reworking the golf course but also restoring the Tillinghast legacy that had largely been lost to the mists of time. "When we arrived there, there was very little Tillinghast left, honestly," he says.

But Sherman saw the First Tee project as the most effective way to recreate the Tillinghast mystique in part because he had access to not only old photos and maps of the Belmont property but also images of other Tillinghast courses.

And then there was the connection between Davis Love III and Winged Foot, the Tillinghast classic where Love won the 1997 PGA Championship. It was a case of familiarity fueling success.

Then there was the issue of funding.

The fact that the project was being supported by private dollars gave Sherman more latitude than he might have had otherwise.

"The money allowed us to do what we thought was the right thing," he says. "We dove into old Tillinghast photos, we dove into other Tillinghast golf courses to make sure we were inspired properly."

With his creative talents unleashed and sufficient funds available to do the job to his standards, Sherman set to work to make sure all the pieces fit on the 80-acre site.

"We had to find a driving range," he says. "We had to find (room for) the six short holes and they were very specific about that, because if you play the six short holes and the 12 big holes as we call them, there's an 18-hole experience there.

"It was pretty easy, to be honest, because it was very clear, looking at the site from the (aerial photos and topographical maps) where the range needed to go, which then sort of dictated where the six (par-3) holes needed to go, and that was, I would say, less quality ground, which sort of leant itself to par 3s. And then, it showed us everything we needed to know about the final 12 holes."

Installing the putting course presented conundrums.

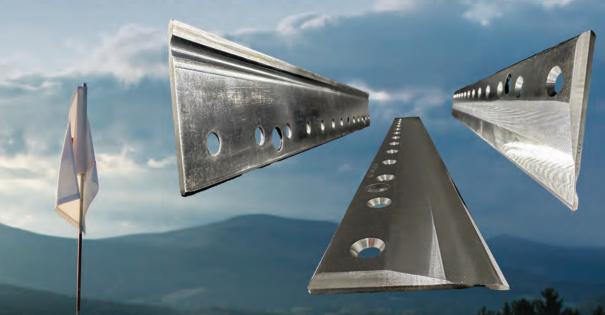
"That was one of our most challenging courses to build and design," Sherman says. "The space was there, it was just making the contours work. It all came together pretty quickly."

In the end, the first six holes of Tillinghast's original design were eliminated. Nos. 7-18 were retained and today play in that order as Nos. 1-12.

The 12-hole championship course plays 4,325 yards from the Tillinghast tees. Other markers, positioned at 4,170, 3,915, 3,585 and 2,855 yards are named in honor of Ross, Hogan, Snead and Love.

The course features 777 creeping bentgrass greens and Bermudagrass tees, fairways and rough. To add to the ambiance of the site, the Love team incorporated chocolate drops

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The second	4BT250119	Toro® Smooth and True low-profile bedknife	.080" & above	5 & 15°	13	21.25"	GM 1000, 1010, 2000, Flex 21/e-flex 2100/2120, 1021, 3000, 3100, 3200, 3300, 3400 series

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of native fescue into portions of the rough, a feature for which Tillinghast was known - and, in more than one instance, reviled.

The 6-hole par-3 course, known as Little Bell, is a walking-only layout featuring two sets of tees. The holes range in length from 65 to 110 yards on the forward set of tees and 80 to 170 yards from the back.

The six holes were inspired by Tillinghast's own work creating short holes. One of them is a replica of a par-3 at Southward Ho Country Club on Long Island. Another recreates a hole from San Francisco Golf Club while a third recreates the Reef Hole that Tillinghast incorporated into a number of his designs.

And the short course may still be evolving. Sherman says if the tennis courts are ever removed there is space available to expand Little Bell to nine holes; the three additional holes have already been designed.

Following the renovation, the modern version of Belmont reopened in spring 2021.

Adam Toombs grew up playing golf at what is now Belmont. He was raised less than 10 minutes from the property. He returned last June as the golf course superintendent.

A James Madison University graduate, Toombs started his professional life as an elementary school teacher.

But a summer at The Federal Club in Glen Allen. Virginia, steered him to a different career path.

"The more time I spent on the grounds crew out there, I started (thinking), 'Hey, this is something I'm actually interested in and would like to do," he recalls.

Toombs oversees an assistant and a crew that reaches around 10 during the peak season, and half of that in the offseason. A big part of his job involves setting priorities and determining what should be

done versus what must be done.

"We're not a very big crew," he says. "So yes, it is a challenge to get everything that we need to get done here done but that's part of the fun of being a superintendent, right? It's really 'greens first' here. We're a teaching facility, so we have a little bit of leeway if we didn't get to mow any rough this week. That's OK, we'll get to it next week. The conditions don't always have to be pristine. The greens and the playability of the golf course is where we focus most of our attention."

The speed of the bentgrass greens is intended to fit the clientele who may call Belmont their golfing home or may be visiting for the first time.

"We have some beginners out here, so we don't need the Stimp running to 12 or 13," Toombs says. "We just need to make sure that it's the best experience for people that are just getting into golf—young kids who are learning the game of golf who want to come back."

Toombs notes that the club attracts a divergent clientele.

"We have kids who are 4 and 5 who are just learning," he says. "With the programming we have here, we have fifth-grade kids taking field trips out here. I love that the kids are out here and we're trying to grow the game

"A lot of people bring their wives and girlfriends out here. I see a lot

more women golfers than I probably did at my other course, which is great for the game. A lot of older people come out here. On Father's Day, you get grandpa, father, son that come out here to play. It's a really entertaining combination of people that come out and play our facility."

Prior to returning to Belmont, Toombs had never worked at a facility with a par-3 course. But he's become a huge fan of Little Bell and the course's other amenities.

"I think the par-3 course is great." Toombs says. "You can pop out and play that thing in 30 to 45 minutes. We're out here at 6 in the morning and there's people that get out here, park their cars, they grab a putter and a couple balls, and they practice putting for 30 minutes before they go to work.

"The course didn't used to have a driving range or really any practice facilities at all, so that's the biggest upgrade as far as getting people here that wouldn't normally come out if they don't want to play a full round of golf."

It's been four years since Belmont reopened following the transformation. Golfers of all ages and ability levels can find what they're looking for here.

The 12 regulation holes immerse the visitor in the work of one of golf's legendary architects. But one need not be a low handicapper to have a memorable experience.





Brent Schneider has been First Tee-Greater Richmond's CEO since July 2008.

"The transformation of Belmont has been great for our community," he says. "We set out to create a welcoming, inclusive and affordable facility with excellent turf conditions. From curious first-timers to lifelong golfers, everyone can find their golfing home at Belmont."

PGA professional Brandon Howard is the head golf professional.

"We're a community-based golf facility," Howard says, "and we offer something for everyone whether they're a serious golfer or new to the game. Little Bell, the 12-hole course and a practice facility give an option for anyone, whether it's their first time with a club in their hand, or they play once a day. We're open to everybody and we welcome everybody."

Howard estimated that he and his team gave between 500 and 600 lessons during the 2024 season. That's in addition to hosting the First Tee program and conducting various clinics, including a partnership with PGA Hope for veterans and the Recovery League, which offers instruction and playing opportunities for those dealing with substance-abuse issues.

Howard not only wants to introduce people to golf but also keep them coming back for more.

"Retention is a big thing," he says. "The facilities that we offer give a comfortable environment, whether it's for juniors, women, men, new golfers, seasoned golfers. Just the welcoming environment we offer keeps people coming and keeps the retention rate up."

Toombs points out that Belmont and First Tee have brought people to golf who might not have access to or an interest in the game otherwise

"It's been a big lift for the community," he said. "This area is not a poor area but it's not a super wealthy area either. You wouldn't necessarily get into golf on your own without this program here at our facility. So, in that respect, it's in a perfect spot."

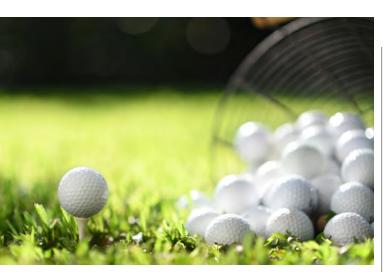
Sherman stresses that an abundance of supporters contributed to the success of the project, including donors who provided the funding necessary to bring the effort to fruition.

"It flowed so well," he says. "It was sort of meant to be." \( \subseteq \)

Rick Woelfel is a Philadelphia-based writer and senior Golf Course Industry contributor.







# ORGAN RECITAL

call it the "organ recital." That's the ritual airing of bodily grievances, invariable by an older generation of men — and women, no doubt — as they gather periodically (whether daily, weekly or just occasionally) at breakfast shops, 19th holes, fire pits or book groups and take turns complaining about their various organic dysfunctions.

I avoid such chatter like the plague — which, thankfully, I have not experienced, in the all-too-many years of my existence. I don't want to be reminded about getting older and frailer. My golf game provides all the evidence I need of that. And so instead of sharing my infirmities with other old people, I'd much prefer trying to stay younger, or at least adapting to my inevitable aging, by working at my game.

Golf allows you to do that. Perhaps other sports do, as well, though I wouldn't expect to find much hope with baseball, football, ice hockey or basketball of reasonably improving performance as you approach eligibility for Social Security benefits. Of course, there's always pickleball — which is why every country club I know is adding such courts to its campus.

The beauty of golf is that because there are so many different shots involved, you can always work on your short game to

compensate for the inevitable ebbing of your long game. I've recently discovered the joys of the 30- to 40-yard lob wedge played from tight, fairway-height turf. Honing it (relatively speaking) has taken a lot of pressure off my approach play and allowed me to rely less on long putting.

I'm not much of a practicer. I have always found it boring to beat golf balls for an hour

Golf is a game for the ages. Including those of us who are aging.

or so. I lose interest around 20 minutes in, though I have been finding myself enjoying those sessions — as much to warm up and let my body get limber as to work on takeaway, angle of attack and finish. But I am wary of hitting off artificial turf mats. The toll on my shoulders is simply too much. With one biceps tenotomy surgery behind me and another orthopedic invasion looming, I am careful not to compound the damage.

And so, I have discovered the joys of 5,600-yard rounds nine holes, actually, with my bag in tow on an unmotorized pull cart or carrying it myself. Once a caddie, always a caddie, I like to say.

Golf is ideal for its adaptability to diverse skill sets. After two decades of golf courses getting longer — the 1980s and '90s - owners and course managers started paying attention to the way real, feepaying golfers played and began sneaking the tees forward. "Stretching the course," I say, in both directions. Small wonder that the game is booming. Forced carries over irrecoverable hazards are increasingly frowned upon with new designs. Older courses are getting retrofitted, with forward tees at a more

> reasonable length, with the shortest tees in the 4,000s, two sets of tees in the 5,000s and everyday play readily accommodated at 6,100 to 6,300 yards.

I'm fine at 6,000 yards, yet always find it surprisingly enjoyable to play at 5,700 yards; suddenly, par 4s are more reachable in regulation rather than requiring driver-rescue-wedge to reach.

The game is healthier for that concession to age, which also happens to be a concession to gender and youth. I take personal pride in having been part of a healthy, golf industry-wide discourse on the value of course architecture, strategic play and fun as crucial elements of the game. That's now reflected in course setup universally.

Golf is a game for the ages. Including those of us who are

My wife — a non-golfer and I recently tried to come up with a list of people we know who are getting younger. We failed to come up with a single name. Still, we try to engage with a fresh circle of people diverse in age and outlook. She's in a college classroom teaching people born in this century. I'm regularly working and playing golf with folks half my age. If that means a round where they play from the back tees and I play from more forward tees, then great; golf allows for that flexibility. Along the way, it affords everyone, of any skill, infirmity or age, of getting better, of flexing their game and working on areas that will enhance their scoring or at least enhance their enjoyment.

Paying attention to that in course design and maintenance will ensure the long-term wellbeing of the game and of those who play it.



BRADLEY S. KLEIN, PH.D. (political science), former PGA Tour caddie, is a veteran golf journalist, book author ("Discovering Donald Ross," among others) and golf course consultant. Follow him on X at @BradleySKlein.

# OFTURFENHANCEMENT TECHNOLOGY

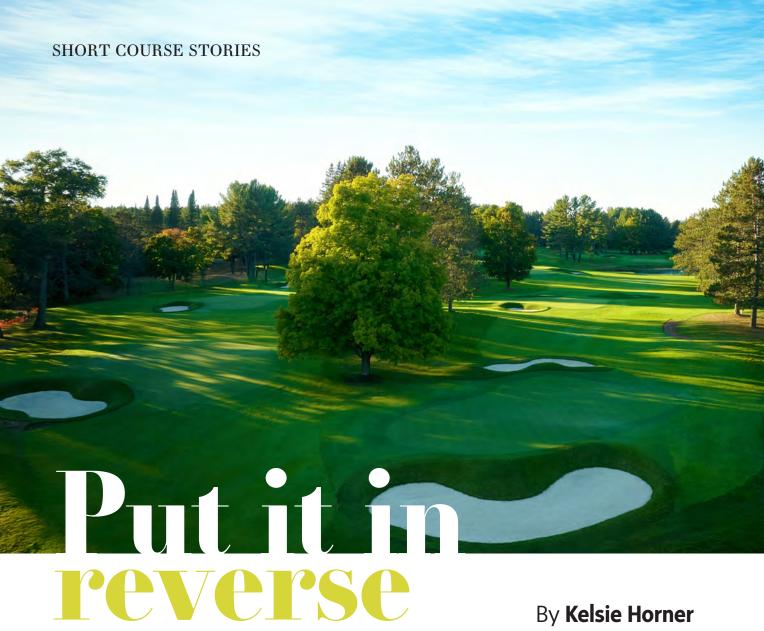


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Michigan's Garland Golf Resort prepares to unveil a par-3 course designed by one of your creative peers for play in both directions.

> orthern Michigan's Garland Golf Resort has not seen any major golf-related renovations or construction since the 1990s. That started changing in April 2023 when new general manager David Sanderson proposed adding a par-3 course.

> "Short courses are becoming increasingly popular and given the fact that we had the land right next to our golf shop, and the fact that the land was already ready to go, we did not have to move a lot, it just made sense," Sanderson says.

The resort had 10 acres of unused

land adjacent to the golf shop, and Sanderson could see its potential. A former senior assistant professional at The Greenbrier in White Sulphur Springs, West Virginia, Sanderson just so happened to know of a former co-worker who has ventured into golf course architecture: Kelly Shumate.

"I went up there and just really fell in love with the place," Shumate says. "It's a beautiful part of the country. I was very excited to start mapping out and wrapping out a plan of the place."

Shumate, the The Greenbrier's director of agronomy since 2010,

has designed multiple courses, including The Ashford Short Course at The Greenbrier and the Short Course at Coonskin Park in Charleston, West Virginia. After Shumate's visit, official planning began in November 2023.

Garland Golf Resort features four championship golf courses: Fountains, Monarch, Reflections and Swampfire. The resort is sprawled over 3,000 acres in the small town of Lewiston in northern Michigan's Montmorency County. Lewiston, an unincorporated community, covers only 4.12 square miles, with a population of less than 1,000.

### SHORT COURSE STORIES



Shumate strived to design a course that was built for any golfer, no matter the skill level, as Garland attracts customers with wide playing abilities. "I wanted to create something that was a balance between a beginner, that he would be able to go out and play it, but bold enough and strategic enough to where it would challenge better players also," he says. "That was my goal, that everyone could go out and enjoy this place, and can't get enough of it, and wants to keep playing it."

After a few rough drafts, Sanderson wanted to add one more element to the future course. "A few weeks after that, I went to him and said, 'Kelly, can we make it reversible?' And I kind of threw him for a loop, I think," Sanderson says. After reconsidering design elements, Shumate developed a 10-hole par-3 course that can be played in both directions.

A reversible course wasn't un-

familiar territory for Shumate. As a child, he grew up playing Twin Falls State Park, a municipal course in southern West Virginia. After playing the same course so many times, he began to have some fun. "I went out and still played golf at that same course, but I got into playing the course in reverse, and kind of cross-country golf, making my own holes," Shumate says. "We had a pretty big yard at the house that I grew up in and I kind of made my own holes out in my yard. I've always had the bug with designs and creating fun things."

Adding the reverse element will ultimately benefit the course. Shumate anticipates the course getting a lot of action and designing it to be played in both directions will allow for walking paths. "They're going to walk this course. Any way you can take that foot traffic off and direct it to another way of getting on that green, and you do that by flipping directions. I think from a maintenance standpoint and operation standpoint, they'll get a lot of benefits."

Now completing the grow-in process, the course is expected to be ready for play in late spring.

The land features a mix of hills and flatland incorporated into the course layout. "We have some natural uphill shots, downhill shots, we've got some greens built on the side of a hill with a big, bold slope that's connecting our double grain, but then they go to a softer plateau area," Shumate says. "There at Garland, we were fortunate to have some really, really great land to work."

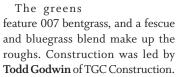
As Shumate developed the course, he planned with efficiency in mind. "First and foremost, I'm a superintendent," Shumate says. "I know how important it is to involve the superintendent and his assistants on any project we do because I'm just there for a short time. They have to maintain it and live with the product."

The course holds large, short-mow

areas that bleed from the approach to

the next tee boxes, so Shumate had to be sure superintendent Mick Zajas and his crew would be comfortable with the mowing directions.

Flat-bottom bunkers were chosen, so washouts are not a worry after heavy rainfall. Fourteen bunkers are dispersed throughout the course. "We shaped the bunkers to where they're still interesting," Shumate says. "They just don't have big, flashing faces."



Incorporating a par-3 course will provide another option for resort visitors. "It adds a whole other dynamic to the golf trip," Sanderson says.

With par-3 courses on the rise, Sanderson believes it was important Garland add a course for golfers of all skill levels. "If you look across the country, all the premier golf destinations are putting them in," he says.

Sanderson says he's excited to see guests enjoy the new course. Initiating this project was the biggest proposal he has overseen from start to finish. "I think I might have missed my calling as a superintendent," he says, "because I enjoyed the project so much." 🗜

Kelsie Horner is Golf Course Industry's assistant editor.



# TRAVELS WITH A 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.





## DECORATIVE WATER COOLER STANDS

he Amarillo (Texas) Country Club had decorative water cooler stands built locally using angle iron, flat steel and square tubing welded together with caster wheels, painted black, for about \$200 each. The ACC lettering, using flat steel, was also placed on either side of the stands as an added touch. The RTIC Ultra Tough 65-quart water coolers (\$249.99) measure approximately 32 inches long by 17½ inches wide by 17 inches tall and weigh 37.5 pounds with a capacity of approximately 64 plastic water bottles and ice. The golf shop staff fills and refreshes them each

day. They are located on holes 5, 8 and 15, with two more at the clubhouse. Dillan Jones and Chad Scott are the club's superintendent and assistant superintendent, respectively, and Steve Wolfard and D.A. Weibring are the restoration architects.

# **TEXAS-SIZE BARBEQUE**

his locally made smoker/barbeque is used out on the course for member tournaments at The Amarillo Country Club. The grilling is done on a recycled propane tank that has two separate cooking areas fueled by a 100-pound vertical propane tank. The smaller horizontal cylinder houses the smoker attachment, which is fueled by the firewood in the attached metal storage cage. The maintenance staff is looking forward to also using it in the future. It is roadworthy, with a ball hitch, spare tire, brake/turn signal lights and Texas license plates. Dillan Jones and Chad Scott are the club's superintendent and assistant superintendent, and Steve Wolfard and D.A. Weibring are the restoration architects.





**Terry Buchen, MG**, is president of Golf Agronomy International. He's a 56-year, life member of the GCSAA. He can be reached at 757-561-7777 or terrybuchen@earthlink.net.

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# SELECT WISE

et's set the scene. It's 4:47 a.m. on Tuesday, July 5. A massive front rolled through the golf course overnight and early indications point to upwards of nearly an inch of precipitation on the already saturated ground. It's been unseasonably hot the last few weeks, especially the last few days. Nighttime temperatures haven't dipped below 74 degrees, and this morning is no different. It's currently 76 degrees with a dew point measuring 87 degrees. You're sitting at your desk mulling through spray records and inventory, as well as the forecast to write up a strategically prioritized spray that will be devastating to any possible pathogen that might rear its ugly head — or, for that matter, may have already begun to inflict pain and suffering on the turf.

We've all been there. Although it's not a glamorous existence, we all relish the challenge to some extent.

As we chose our solutions in this scenario, did we ever forensically evaluate our thought process in selecting and deploying various products? Better yet, let's rewind even further: Why did we choose to purchase the products that we have in inventory? Did we select a 2-for-1 or even a 3-for-1 combination product? Did we methodically analyze the active ingredient load of these combination products? Did we make our purchases based on additives and enhancers? Did we vet the internal and/or independent research on which a product bases its legitimacy? Did we delve deeply into the inert ingredients and surfactants? Did we research the manufacturing capability and quality control of the company brandished on the label? Did we simply plug and play a pre-determined agronomic program from an industry source, distributor rep or a manufacturer website? How have prices for the same product increased 5 percent, 10 percent, even sometimes 15 percent year after year for several consecutive years? Are we still using Product X for no other reason than, "I like it, and it works?"

I think you get the point.

Welcome to a socioeconomic corporatocracy where businesses and their purchasers, including golf courses and superintendents, become consumed by systems that are creating or strengthening business operations in a manner unbeknownst to the consumer. In plain terms, are our choices as purchasers, users and proponents of various products based on results-driven decisions? Or have they been clouded by marketing, branding and bureaucracy?

Let's pause for a second and set the record straight before we go any further: We fully support pesticide manufacturers and their product portfolios. We purchased, applied and recommended countless products from virtually every manufacturer. By no means are we inferring any malicious, nefarious or misguided intent by anyone, anywhere, at any time.

But we feel a deep dive into this aspect of our industry may benefit from the same level of molecular analysis that we employ for countless other aspects that do not come close to similar financial and efficacy-based ramifications. It's common, even customary, that pesticide purchases are the second-largest operating budget line item behind only payroll. Often, scrutiny of these purchases and the technical strategy behind specific product selection are non-existent.

From our lived experience and basic observations, we feel a tactful shift across all levels of this industrial complex can be mutually beneficial to all parties. Building transparent relationships from manufacturer, to distributor, to end user based on education and awareness will facilitate a paradigm shift in this important aspect of our livelihoods.

- Develop programs based on targeting specific pathogens, as opposed to choosing marketing-based solutions with blanket, broad-spectrum chemistry.
- · Begin to exercise alternative products to facilitate competition.
- · Investigate and partake in high-level technical discussions and professional education from reliable independent sources.
- · Improve awareness and understanding of inert ingredients, additives and enhancers — not only their impact on efficacy, but also on cost.
- · Why are post-patent manufacturers able to sell identical products at significantly less cost than branded competitors? Is there a tangible reason for such cost discrepancies? We're not implying there is or isn't, but either way, perhaps the consumer should be aware.
- · How has government regulation and oversight impacted the cost of doing business?

Those are just a few items to consider. It's by no means an all-inclusive list. We won't pretend to know the answers to the rhetorical questions we pose for consideration, but we do feel that a transparent conversation may be warranted. If nothing else, you may have a little more confidence and determined resolve when sitting in your office on a dank, sweaty, pre-dawn morning devising a job-saving, turf-protecting application.

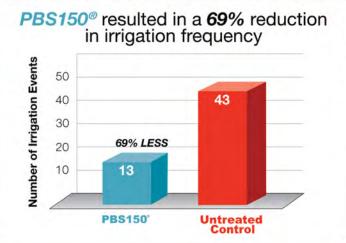




DAVE DELSANDRO and JEFF CORCORAN are former superintendents and co-founders of Agronomic Advisors, a consulting firm that assists and advises industry professionals on every aspect of golf course management. Contact them at dave@agro-advisors.com and jeff@agro-advisors.com.



# PBS150 resulted in a 39% reduction in irrigation water consumption of the summary of the summar



Evaluation of Two Soil Surfactants for Soil Water Management of Creeping Bentgrass on a Wettable Clay Loam Rootzone During a Dry-down Period

Nolan, G. and M. Fidanza. 2016. Penn State University

**PBS150** <sup>®</sup> is the **FIRST** surfactant in the turfgrass industry to have peer-reviewed, published research to prove and **quantify water savings**.

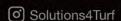
Penn State University research study showed that creeping bentgrass plots treated with **PBS150** resulted in a **39% reduction in irrigation water consumption** over a 63-day dry-down period versus plots only treated with irrigation water.

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