JULY 2020 | golfcourseindustry.com

INDUSTR

lamics of getting vehicles in the right places and agronomics and agronomics which what does this mean for operations and agronomics are selected agronomics.

<u> Կգրլիությիլունարին արդակարկարի</u>

085TT+T 85095

PETE COOKINGHAM MICHIGAN STATE UNIVERSITY 366 W CIRCLE DR # W301A EAST LANSING MI 48824-3700

0038 / 54030

Most foliar sprays are meant to give your turf a tune-up. Ours rebuild the whole engine.

Foliars+ liquid fertilizers endow your turf with

a deeper vitality as they beautify it.

By nurturing and supporting trillions of soil microbes beneath the surface of your plants, they fortify your root systems for improved nutrient and water uptake.

That's why our Foliars+ liquids don't stop at the plant level, as other spray fertilizers do. They infuse your soil with a rich mineral mix and advanced humic acids to stimulate its microbiology.

Over 30 active ingredients supercharge microbes to digest thatch and other

organic matter, turning it into

bioavailable fuel for your plants. You get an immediate boost now, and a long-lasting benefit into next season.

Call 800-732-8873 to learn more about EarthWorks'

Foliars+ programs. Because turf with beauty and vitality comes from a deeper respect for the soil—as well as the work you do.



Ask us about Foliars+ liquid fertilization programs



A Deeper Respect



FEATURES

Cover Story

10 CART CONVERSATIONS ... **OPERATIONS**

The spring of 2020 forced the industry to rethink managing fleets. How did facilities adapt? And what's next for transporting players around the course?

14 CART CONVERSATIONS ... **AGRONOMICS**

Across the country, more turf professionals are adapting to - and even embracing — the maintenance challenges provided by more vehicles on the course.

Management

18 PUMP YOUR TEAM UP

A little workplace wellness can go a long way to improving the morning maintenance vibe while keeping your crew strong into the afternoon.

Spotlight

28 SOAKING UP SAN FRANCISCO **SCENES**

The relationship between TPC Harding Park and its community runs much deeper than one major tournament.

Construction

32 RESTORATION? RENOVATION? **MODERNIZATION?**

Whatever you call it, it's a worthwhile investment. Sketching a blueprint and remaining adaptable are key to any project.





GOLF COURSE INDUSTRY (ISN 1054-0644) is published monthly. Copyright 2020 GIE Media Inc., 5811 Canal Road, Valley View, OH 44125. All rights reserved. No part of this publication may be reproduced or transmitted by any means without permission from the publisher. For quality article reprints of 100 or more, call GIE Media, Inc. at 800/456-0707 and ask for the Reprint Department. Subscriptions and classified advertising should be addressed to the Valley View office. Periodicals postage paid at Cleveland, Ohio, and additional mailing offices. Postmaster: Send address changes to GOLF COURSE INDUSTRY 5811 Canal Road, Valley View, OH 44125. Canada Post: Publications Mail Agreement #40612608 Canada Returns to be sent to IMEX International, P.O. Box 25542, London, ON N6C 6B2



100 HOLES, 100 THANKS

received an unusual voicemail and follow-up text message from the boss while playing 9 on a Sunday evening: Any chance you can play 100 holes of golf tomorrow? I need a partner. Need to be there at 6:30 a.m.

Upon discovering the messages, I couldn't call him back fast enough. The enthusiastic reply consisted of two letters: *IN!*

It happened so fast — and unexpectedly — I initially downplayed the magnitude of the opportunity. I returned home, prepared clothes and supplies (two dozen Titleist Velocity balls marked with green dots), and slept six hours. I pulled into the Elyria Country Club parking lot at 6:28 a.m. Dave Szy, our golf-loving publisher, arrived a minute later. We had can't-believe-this-is-happening looks on our faces. We then tossed our clubs into separate carts and listened to final instructions before scooting to the course for the two-person scramble.

At 7 a.m., we hit the first of more than 350 shots, both missing the fairway on the 315-yard seventh, a par 4 featuring a perched green guarded heavily by bunkers. At 9:09 p.m., we hit our final shot, tapping in for a par on the 482-yard 16th, a par 5 with an elevated tee along the bending Black River.

What happened in between remains a blur. We made dozens of pars ... and a few birdies and bogeys. We chatted ... but never had an extended conversation because we always had another shot to play. We endured two stretches of rain ... and one dead cart battery. We turned into golf machines, racing from shot to shot, hole to hole, round to round. Our bodies felt fine. Dave participates in Orangetheory classes; I'm diligent about mixing yoga and core work with daily cardio. We were both swinging golf clubs again two days later.

A terrific cause served as the impetus for the manic, magical and memorable Monday. Our parent company, GIE Media, is a supporter of the Orange Effect Foundation and the ambitious outing raised more than \$47,000 to ensure children with speech disorders receive speech therapy and technology.

Fortunately, the foundation found a way to stage the event. Elyria Country Club, a fabulous William Flynn design on Cleveland's far West Side possessing topography, shot variety and natural surroundings, proved a terrific host for the outing. The presence of 28 golfers hurrying to hit shots creates major morning maintenance conundrums. Dave and I have golf course maintenance experience, so we fully understood what the Elyria Country Club crew faced. But superintendent Patrick Rodgers and his team worked deftly around the madness. Their efforts will help dozens of children.

Unfortunately, not every organization relying on funding via golf can stage its outing this summer. Gathering sizes are still limited in many states. The typical charity outing contrasts the quaint event Dave and I experienced. Twenty-eight players riding alone is manageable. Properly spacing 144 players, though, is a significant challenge, especially if the event uses a shotgun start. Golf's annual charitable impact had been approaching \$4 billion before the start of the COVID-19 pandemic, according to We Are Golf. The total will likely decrease in 2020 given the protocols and economic hardships related to the pandemic.

A few days after establishing a single-day personal golf record, I stared at a scorecard with six big numbers: 2:24, 2:31, 2:33, 2:53, 2:17, 1:26. The numbers represented how long it took us to complete the five 18-hole rounds plus the final 10 holes.

We had the easy part. We just showed up and played. Volunteers and course employees made tremendous sacrifices to keep this unique piece of golf's gigantic charitable puzzle intact.



Guy Cipriano
Editor-in-Chief
qcipriano@gie.net

GOLF COURSE

Vol. 52 No. 6 GIE Media, Inc. 5811 Canal Road Valley View, Ohio 44125 Phone: 800-456-0707 Fax: 216-525-0515

PUBLISHER
Dave Szy
dszy@gie net

dszy@gie.net

Guy Cipriano

Editor-in-Chief gcipriano@gie.net

Matt LaWell Managing Editor mlawell@gie.net

Terry Buchen
Technical Editor at-large

GRAPHICS / PRODUCTION Jim Blayney

Creative Director

Caitlin McCoy
Advertising Production Coordinator

SALES Russell Warner Jational Sales Manager

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

Andrew Hatfield
Account Manager
ahatfield@gie.net • 216-393-0291

CORPORATE Richard Foster Chairman

Chris Foster President and CEO

Dan Moreland
Executive Vice President

James R. Keefe Executive Vice President

> Kelly Antal Controller

Christina Warner Audience Development Director

> Michelle Wisniewski Production Manager

Maria Miller
Director, Conferences and Events

Irene Sweeney Marketing Director

Kevin GilbrideBusiness Manager, GIE Ventures

Golf Course Industry is a member of:
Golf Course Superintendents
Association of America
National Golf Foundation
Golf Course Builders Association of America
The Irrigation Association
Responsible Industry for a Sound Environment



What if a Pythium Product Did More?



*Introducing*Union™ Fungicide SC:

Dual mode-of-action control of all Pythium diseases and 17 other diseases in a single product.

Union™ Eliminates:

- All Pythium Diseases
- Brown Patch
- Summer Patch
- 15 More Turf Diseases

+Plus

Union also eliminates the time and labor needed to tank mix fungicides.

Visit GIS Booth #5435

PBIGordonTurf.com/Union



NOADB

AROUND THE INDUSTRY: GCBAA SURVEY INDICATES PLENTY OF PROJECTS ARE STILL ON SCHEDULE

Golf Course Builders Association of America member survey and feedback from the country's leading golf course construction companies paint a relatively optimistic picture of the renovation and remodeling market.



About 70 percent of GCBAA members reported cancelled projects of some kind, but nearly 30 percent said they had experienced no significant impact on schedules. "I think what surprised me the most is that compared to the 2009 recession in golf, our members are more optimistic about the outlook post-COVID-19," GCBAA executive director

Justin Apel says.

38 percent of GCBAA members said they expect things to stay the same or even increase in the short term, while 22 percent indicated they were unsure but optimistic that everything will return to normal. Only 9 percent said their future projects have been cancelled and they are worried about course closures, while another 9 percent reported current projects are being postponed and they weren't seeing new projects.

In memoriam: Former USGA Green Section agronomist and national director Bill Bengeyfield passed away June 3 at age 97. Bengeyfield first joined the Green Section in 1955, serving as an agronomist until 1978, when he became the director of golf courses and park maintenance at Industry Hills Golf Club in Southern California. He rejoined the Green Section in 1981 and served as national director from 1982 until his retirement in 1990.

Short course news: Pebble Beach Company and Tiger Woods, through his TGR Design firm, are transforming the former site of Peter Hay Golf Course. The new facility will include a short course comprised of nine par-3 holes measuring 670 yards total, a 20,000-square-foot

> putting course, and a 5,000-squarefoot food and beverage venue.

Course management: Troon is partnering with The National Links Trust, a non-profit entity formed to preserve and protect affordable, accessible and architecturally engaging public access golf, to manage the operations for East Potomac Park, Langston and Rock Creek Park golf courses in Washington, D.C.



Tartan Talks No. 48

Think you have a crowded hard drive? Documenting a recent project forced golf course architect Todd Schoeder to use 75.92 gigabytes of digital space.



▲ Schoeder

Plans. Sketches. Text documents. Spreadsheets. Photos. If it happened at Denver's City Park Golf Course over the last four years, it's likely resting in one of the 5,000 files accumulated by Schoeder.

"Luckily," Schoeder says, "I have a big hard drive. It goes to show there's a lot of thought put into this and it's not just me. It's all of my colleagues that are doing this for a living as well. We're passionate. That's why we are in this."

Schoeder exudes passion in a Tartan Talks podcast. For Schoeder, that passion stems from playing a 6-hole loop as a child and working for legendary superintendent Larry Mueller at Seth Raynor-designed Minnesota Valley Country Club.

"I was very, very fortunate growing up in Minnesota, surrounded by many classic golf courses, to have the opportunity to work on a Seth Raynor course," he says. "It brings back a lot of memories. In a roundabout way working on a course, on the grounds crew as a teenager all the way through high school and college, brought me to design."

Enter bitly.com/ToddSchoeder into your web browser to learn more about Schoeder's career path and his recent work.



DIAL UP PLAYABILITY.



ZIPLINE FOR FAST, FIRM, FINE TURF.

Turn up the playability and improve turf health with Zipline powered by AquaVita™Technology – Our dual-action soil surfactant blend containing a unique mineral solution bio-extract that is specifically formulated for turf care professionals.

Catch a YETI® with Aquatrols this season. Earn points on Zipline purchases & more: CatchAYeti.com

What Does It Do?

- Balances Hydration
- Improves Water Infiltration
- Enhances Mineralization
- Delivers Plant Health Benefits

Ready to find out how Zipline can positively impact conditions on your course? Contact your Aquatrols Distributor or visit **Aquatrols.com/Playability**.





DEFINED BY PASSION

olf is a service business that attracts people who have a passion for the game and its values. Identical twins Daryl and Derek Crawford were born and bred for the job.

"Our father was a skycap at TWA in Phoenix and taught us the importance of service to others," Daryl says. "He passed that along to us."

He also told his sons they would be defined by their actions, not the color of their skin. A father's guidance has proved invaluable over the course of his sons' lifetimes and three decades in the golf business. Their story is one more example of the disparate ways golf can serve as the foundation for lives that are well lived.

The Arizona Golf Association's 2020 Updegraff Award, given to Derek, an executive with Phoenix-based Gibson Golf Man-

agement; and Daryl, the general manager at Papago Golf Course in Phoenix, is only the most recent example. The award, named for Dr. Ed Updegraff of Tucson, a longtime supporter of amateur golf in Arizona, is earned by those whose actions exemplify the spirit of the game.

Golf was an early influence in the twins' lives. Growing up, they were Their love for golf, years of experience and strong work ethic have served them well over the years, and they haven't forgotten to give back along the way. Their story is a great example of the way golf can become the foundation of success."

 Phil Green, COO and Principal, OB Sports Golf Management

like most little guys, playing whatever sport was in season. They were introduced to golf at a municipal course in Phoenix and soon became fixtures. "We liked being at the golf course and were always looking for reasons to be there," Derek remembers.

They began to compete as teenagers, and that's when they met Bill Dickey, a former winner of the Updegraff Award, and other members of the Desert Mashies, a Phoenix-based group of minority golfers who help young golfers connect with the game. "Bill and Alice Dickey embraced us as family and always helped us when we needed it," Daryl says.

They played on the first golf team at St. Mary's Catholic High School in Phoenix and walked on at Arizona State. Good players and enthusiastic competitors, they were attracted to the game's attributes and values. Accountability, striving toward a goal and staring down adversity or disappointment were part of their DNA.

They worked at courses in the Phoenix area, first in bag

rooms, where they refined their service skills, and later in management positions with increasing responsibility. Soon they were being recognized as

role models, especially for other young people of color.

In the 1990s, they both left the club life to work as PING tour reps on the men's and women's European tours. They became trusted friends and suppliers to the some of the world's best golfers.

For Daryl and Derek, it all seemed a natural progression.

"We did as our parents taught us, to listen to and learn from good advice," Derek says. "And we never lost the joy of playing the game."

"They were brought up in the game and continue to grow as business leaders and all-around golf ambassadors," said Phil Green, COO and Principal of OB Sports Golf Management, which manages the Papago course where Daryl is the general manager. "Their love for golf, years of experience and strong work ethic have served them well over the years, and they haven't forgotten to give back along the way. Their story is a great example of the way golf can become the foundation of success."

As African-Americans, Daryl and Derek stand out in most golfing circles, where black and brown faces are significantly underrepresented. But it's their actions, not their race – as their father predicted – that have defined them.

"We never felt anyone was trying to stop us or hold us back," Derek says, as if anyone could.

"We have been blessed," Daryl adds.

As have we all through their actions and their friendship. GCI



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.



THERE'S A NEW STAR IN FUNGICIDES.

Pedigree Fungicide SC - The First Liquid Flutolanil Formulation

The disease control that made the granular flutolanil an industry standard is now available in a liquid! Pedigree Fungicide SC offers the same performance and turf safety as granular flutolanil, but it's easier to handle and easier to mix with other products.



- Brown patch
- Fairy ring

PEDIGREE

A systemic fungicide for control of

- Leaf and sheath spot
- Brown ring patch
- Red thread
- Pink patch
- Yellow patch
- Gray snow mold
- Large patch

Protect Your Turf with The New Star in Fungicide: Pedigree!

PBIGordonTurf.com

Always road and follow label directions 2/20 05976



Employee-Owned



18-hole golf courses. A new era dawned March 18 when COVID-19-related restrictions kicked in, forcing Forester to consolidate the facility's resources. The decision was made to

miles east of Atlanta. The

12,000-acre site features six

from six golf courses to four at that

tric carts. We could only charge so many at a time, even though we might have had more. I think we had 103 to 105 at each location. You might have 76 to 80 charged in the morning, but we had to get the rest ready and charged.

"We knew we only had so many tee times available for the amount of players in the morning so we could have enough for the afternoon. We had to limit the tee times we had available each day."

Tee times were available until 3 p.m., with nine-hole rounds available until 5 p.m. Over time, partners and family members living in the same household were permitted to share a cart.

Eventually, each course was hosting about 150 players each day. That number included a fair number of walkers. Before the pandemic, less than 1 percent of the rounds at Reynolds Lake Oconee were walking rounds. But that circumstance changed and in due time some 30 to 50 golfers were walking each day.

"As we had limited tee times, we had members that would ask, 'If I walk, can I go play?' Forester says. "Sure, absolutely, especially later in the day. And we've been very lucky in Georgia. The temperatures have been extremely cool until recently."

To accommodate the additional walkers, the club opened one of its courses 10 days ahead of schedule for walking only and rented additional pushcarts.

Mark Bryson is the director of golf at Jumping Brook Golf Club, a private club in Neptune, New Jersey, about an hour south of New York City. On a typical day, the club will have 64 electric carts available for members. Bryson will bring in additional carts when circumstances warrant — for a large outing, for instance. When golf courses in New Jersey reopened May 2 after being closed six weeks because of COVID-19, he had a plan in place.

"We rented an additional 24 carts prior to the reopening," he says.
"So, we currently have 88 carts in play. And we've been able to manage. We purchased a steam-powered power washer. It was sort of ironic, it had nothing to do with the pandemic. It was something that was

available to us in a purchase and we decided it would be a good thing to have on property for a couple different reasons, but now it's turned into a great operational tool for us to properly clean carts."

A lot of carts needed to be cleaned. The executive order that permitted golf courses to reopen in New Jersey stipulated one rider per cart. That created what Bryson described as "an operational challenge."

"We're flipping golf carts immediately as they come off of 18," he says. "People are putting their clubs in their cars and bringing the cart back and we're taking the golf cart and power washing it and turning it back into line. In a lot of cases, some players are teeing off as we're bringing a new, clean cart to them at the first tee. It has been an operational challenge, but it's a great problem to have. That means we're an outlet during this crazy time for people to play some golf." (The mandate for single-rider golf carts was lifted on June 10, but a club must provide a single-rider cart upon request).

COVID-19 became an issue in Arizona at the height of the golf season, when visitors were flocking to the

area for MLB spring training and to escape the winter cold. Brady Wilson is the general manager at Ak-Chin Southern Dunes, a daily-fee club in Maricopa, Arizona, outside Phoenix.

When the pandemic hit, Wilson, who is a PGA professional, adjusted his cart policies. "We didn't pair groups anymore," he says. "If you were a twosome and there was a twosome right behind you, normally, we would pair those twosomes up and make it a foursome. We didn't pair anybody up. We left you in the group that you booked with. ... We didn't put anybody additional with you. We let you go with your group."

Golfers were encouraged to take separate carts, although they were not required to do so.

"We encouraged everyone to take their own golf cart," Wilson says. "We would allow that by exception" — spouses who requested to share a cart, for instance — "but in general, we went solo. If we had a foursome of four guys, they would take four carts."

Deerpath Golf Course in Lake Forest, Illinois, just outside Chicago, is a municipal facility, which, like all golf courses in Illinois,



Single-rider carts are among the operational challenges golf facilities are facing in 2020. was shut down in mid-March. When the club was allowed to reopen May 1, golf carts were largely prohibited. Play was limited to twosomes and tee times were spaced 15 minutes apart. (Golfers with a handicap placard or with a doctor's authorization were permitted to ride.)

On May 29, restrictions were eased statewide. Foursomes are now permitted, with tee times spaced 10 minutes apart. Single-rider carts are the norm, though members of the same household can ride together.

Vince Juarez, Deerpath's general manager, realized early on that the fleet of 60 carts would not be enough for the expected - and realized surge in play and put together an action plan. "We partnered with Rolling R, a rental-cart fleet company and brought in 15 additional golf carts to add to our fleet," he says. "Even before (Illinois Governor J.B. Pritzker) had announced single-rider carts, we were in talks to confirm and solidify the extra carts knowing carts would be at a premium once the state made their decision to go to individual riders."

Juarez's decision proved prophetic as clubs found extra carts difficult, if not impossible, to obtain.

ECONOMIC IMPACT

The effect of the COVID-19 pandemic on overall bottom lines and cart revenue varies according to individual circumstances.Ak-Chin Southern Dunes has 82 carts. The fact that so many players were riding solo tested the limits of the tee sheet and impacted the club's bottom line.

"On a full day, normally I could do 240 to 250 rounds," Wilson says. "I was not capable of doing that because I had so many carts going out as solo riders that I didn't have enough available for people to come back around. So, there were spacing blocks. We spaced our tee times out a little further. We blocked a tee time every hour and a half."

At Ak-Chin Southern Dunes, a

golf cart or pushcart is included in the greens fee. In practical terms, however, single-rider carts and a longer interval between tee times has an impact. "You're still putting the entire fleet out," Wilson says, "so that's still a lot of work for your team and then the disinfecting and sanitation of a cart take a lot longer" five or six minutes per cart. "You're asking your staff to work harder for less rounds of golf."

At Reynolds Lake Oconee, Forester saw rounds increase this spring as more of the community's 2,400 member/residents migrated there from areas that were severely impacted by the pandemic.

"In May, we saw our member rounds increase by almost 55 percent from what we would see in a normal May," he says. "Even though we had those 30 to 50 walkers per day, and even though we rented 72 additional golf carts, we actually saw our revenue in golf carts go up. Basically, the rented carts got paid for and we kept our revenue up. It was amazing to see so many more member rounds and how many more were staying in their homes down here."

At Deerpath, Juarez is still awaiting permission to reinstitute his regular tee sheet, with start times set eight minutes apart.

IS WALKING MAKING A **COMEBACK?**

In the wake of the pandemic, facilities may find themselves creating new ways to manage their cart fleets. Jan Bel Jan, the President of the American Society of Golf Course Architects, believes that carts and protocol may have a different look in the days ahead.

"Some may remain the two-seater carts, the traditional type," she says. "Some may become a single-rider with the ability to carry four bags, and one person drives and everybody else (walks). Some may end up having caddies that drive the cart. They don't touch the bags, but they drive back and forth and everybody walks.

"There may be people who choose to have some of the newer style-golf boards, biketype situations, they're definitely single-rider. The single-rider carts have been out quite a long time for people with disabilities."

And then there's the oldest form of on-course transportation. Some golfers resorted to walking this spring because carts were prohibited or unavailable. Will those who discovered or rediscovered the joys of walking stick to it?

"It will be interesting to see," Forester says. "I think you'll start to find more of our members will walk as long as the temperature is right. I think once we get into the summer and get into a little more of the humidity and heat, I think they'll automatically gravitate toward golf carts. But I think in your springs and your falls, I think you will see it."

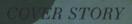
Juarez says golfers are creatures of habit. He estimates around 20 percent of rounds at Deerpath are walking rounds. He doesn't expect that number to increase much.

"Once we hit (May 29), I would say golfers returned to their normal habits," he says. "If they rented a cart prior (to the pandemic), they're renting a cart now. If they walked prior, they're still walking."

Forester says he's had a lot of positive interaction with golfers who have chosen to walk.

"I can't count how many members who have stated, 'Wow, I forgot how much fun it is to walk," he says. "And it's a better pace overall. You can walk in four or four-and-a-half hours, you're always moving, and you get into a rhythm. You can keep a safe distance from somebody else and have a great conversation going on the golf course." GCI

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



AGRONOMICS

Across the country, more turf professionals are adapting to — and even embracing — the maintenance challenges provided by more vehicles on the course.

By Judd Spicer

mid regional mandates, rules, suggestions and regulations, agronomists and superintendents across the country are rolling with the days of COVID-19.

Literally.

As an understandable means to either enforce or enact social distancing measures on the course, single-rider carts are common these days. Basic math is seeing riding groups now using four carts in lieu of the traditional two-perfoursome and with golf open — or reopened — across all 50 states, pent-up demand for outdoor activity has seen a surge in play during the late spring and early summer seasons. More play, more carts, more wear and more tear has course managers — like so many industries — adapting to life during the days of virus.

"Nearly everywhere I've gone, rounds are through the roof," USGA Green Section West Region agronomist Brian Whitlark says. "In April and May, some courses I visited set records for those months. Just as an example, one course told me they typically do a half million in revenue for April. I was there in the last few days of that month and they'd already done \$700,000. And a part of that is with more carts-per-four-some, they're charging for each cart."

Price pivot-to-profit aside, the biggest green issues Whitlark sees in his travels involve turf, not dollars.

"The most high-profile areas of damage ar occurring where carts leave the path and enter the grass after the teeing grounds," he says of single-rider ingress and egress areas. "And then re-entering the path before the green. So, we're talking about potentially 200 carts a day going through those same areas."

Techniques working to assuage or control the damage, are myriad.

"To combat that, a lot of courses are using the gate system, which is something fairly simple to

▶ Signage is one way to alert golfers of how to properly drive carts throughout the course.

operate for the course staff, and they can shift the gates around on a daily basis," Whitlark says. "One course I was just at painted a yellow line about 70 yards in front of the green. No signage, but the line told players they couldn't cross, and carts had to exit the fairway before the yellow, even though that still found players mostly exiting the same area. But that system actually worked pretty well, better than signs, actually; people tend to do the opposite of whatever a sign says."

Courses skipping overt signage? Get a rope.

"I've also seen a course lay a yellow rope on the ground, again, about 70 yards before the green," Whitlark adds. "But it's funny, that anywhere there's coyotes, the ropes are a pain in the butt because the coyotes eat them. And given the risks of touching the rope—even for the maintenance staff-I've generally seen many people remove a stake-and-rope system, maybe 50 percent are still using that."

Agronomy practices such as spot-aeration and working with linear decompaction methods are also seeing an uptick.

"There's ShockWave and other linear tools, or even just pull-behind slicers," Whitlark says. "Something that's fast, non-disruptive and not labor intensive — tools that superintendents can use to get out in front of play. I'm definitely seeing a trend of using these kind of tools more frequently, especially in these high-traffic zones."

Swinging across the map to central Indiana, the aims are the same with rising rounds and single riders.

"The round counts I've seen from mid-May into mid-June just blow last year out of the water," says Brent Downs, director of agronomy at Otter Creek Golf Course, a popular 27-hole facility in Columbus, Indiana. "Especially since Memorial Day, when we received word from the Indiana Golf Association that, providing certain protocols were met, we could run



two-person carts. But preceding that, we ran single-rider carts for a while."

Heading into late June, Downs says that even with graduated protocols in play, single-rider requests still comprised half of the course's groups. Slightly advancing aerification schedules and, moreover, a revised roping scheme are a big part of Otter Creek's strategy.

"We had to be very proactive with our roping scheme, as we don't use a geo-fence or anything like that," Downs says. "I know where those traffic patterns are, where they wear out, and, typically, I'll let those go just a bit before I rope them. So, basically what I did was implement summer traffic patterns in springtime — that was the first thing we did."

In addition, communicating the need for communal turf care has become a gig in itself.

"I'm in constant communication with our regular players," Downs continues. "And, believe it or not, they're just so happy to be out there playing that I've had really good luck with them. I won't tell you we didn't see some damage — we did — but I'd like to think we were forward-thinking with both communication and roping, so we didn't see as much damage as I initially thought we'd see. That's a testament to a lot of people wanting to protect the course and do things the right way."

While Otter Creek's players were

receptive to signage, in-person social distancing communication and online communiques also proved valuable tools.

"I went and talked personally to a lot of the regulars, and was just very frank with them to keep in mind that single-rider carts doubles the amount of tire tracks," Downs says. "And they were very willing to help. It's the best I've ever seen here for scattering carts. We also used e-mail blasts, and I really communicated to the regulars that this needed to be a group effort to avoid issues as we head into summer."

Akin to most, if not all, superintendents and agronomists, Downs is no fan of continual course signage. Nonetheless, posting namely clubhouse signs to get the word across has proved an added layer in the communicating chain.

One scatter pattern that seems to be benefiting superintendents is the growing trend of players using legs instead of wheels.

Akin to both Whitlark and Downs, Bob Farren, vice president of golf course maintenance at Pinehurst Resort in North Carolina, has seen the times of COVID-19 enhance walking traffic.

"Starting to reflect on this, it's interesting that the trend for the past two or three years has been for people to walk and carry their own bag or use a pushcart," says Farren, noting



that pushcarts are now available on all nine of Pinehurst's championship courses. "There had once been some hesitation to allow the pushcarts, though I've been a big advocate for them. With the redesign last year of No. 4, it seemed liked more and more people wanted to use pushcarts. So, the enhanced walking was even happening before the virus and now it's even more so. And I love this aspect. If anything good has come of this (pandemic) for golf, it's to see more people walking the courses. It's just wonderful. That's really the message I take away from all of this."

Previously presented with single-rider rule protocols as a COVID-19 guideline and best practice by the Carolinas Golf Association and its PGA Section - shared carts are again allowed — Farren never saw solo carts as a primary

"In the scope of things, it wasn't our biggest issue. I mean, it was kind of selfish, I thought, to complain about that, because we were just happy to have the play that we had," he says. "So, we didn't want to be squeaky wheels about the carts."

From ropes to stripes to signage, the most effective means of enacting course care would still seem to come via direct communication to one's own golf community — while ensuring six feet of distance along the talk or type chain.

"I feel like I've seen every kind of attempt, and nothing seems to work perfectly. There's not just one way, one answer," Whitlark says. "I know that many supers write a weekly update or send e-mail blasts or a newsletter, and I know that social media has also been a popular way to try and get the word out regarding guidelines. Signage in the clubhouse, maybe above the urinals, placards through the club, maybe signage on the first tee."

Ultimately, a culture of individual onus and course or club pride seems to bear the greatest fruit.

"Most effective, from what I see, is the peer-to-peer governance that seems to work best," Whitlark says. "When golfers govern themselves, that seems to be the best way." GCI

Judd Spicer is a Palm Desert-based writer and frequent Golf Course Industry contributor.





PLAY GOLF NOW!

I occasionally use this column to get a message to golfers, usually about maintenance issues they should be aware of. But this one is different because the times are different. Golf is the perfect pandemic activity and the game is seeing a healthy "bump" in play that we'd like to see continue. Let's all work to get new people playing — while understanding the importance of your job and keeping the course beautiful and safe. Post this article at your club and make copies for your friends, golfers and non-golfers alike. We really can "grow the game."

ow is a great time to start playing golf — or, if you already play, to play more. Why? Because there's no pressure. The Rules of Golf are relaxed, the sport is experiencing a resurgence, and done right, it's a proven form of social distancing. And you don't have to keep score to have fun. So why not try something new and start playing a game you can play for as long as you want?

I've been playing for more than four decades and have talked to many of the greatest players and teachers in the game. I'm not going to tell you how to swing a club, but I have learned a few things about how to play golf that I'd like to pass on to make your start easier.

If you are a beginner, learn how to grip (and rip) a club and which clubs to use first, then learn how to swing a club correctly. Course management (getting from tee to green most efficiently) needs to be taught. Learning to manage the course is more important now for the beginning player than swing technique.

The Rules have been relaxed like never before, and everyone should take advantage of the "new normal." Roll the ball over to give yourself a better lie in the fairway, smooth bunker sand with your shoe, and clean dirt off the ball when it's in the fairway. The game is hard enough, especially when you're starting out.

One of the hard things about golf — but also one of the great things about golf — is that it gets in your head. Try to keep it in perspective: It's simply getting the ball into the hole in as few strokes as possible.

COVID-19 has caused courses to lighten up, too. Due to labor issues, you might notice a change in conditioning: the turfgrass isn't being mowed regularly, the flagstick must remain in the hole, there are no rakes in bunkers. This is a good thing and I hope the trend to more relaxed conditions continues.

Because our world has changed, it's a great time to assist your golf course superintendent by being aware and caring for the course. Help as much as you can during this period of reduced staff, time and budgets. Here are a few things a beginner (and all of us) must know about the course itself.

WALK OR RIDE?

First, it's golf, not NASCAR: Driving the cart shouldn't be the game. Second, carts are in limited supply due to single-rider protocols. So, if a course is walkable, why not walk?

If you want to ride, fine, but be responsible behind the wheel. Stay on the path if asked, stay well away from the greens. You'd be amazed how much damage carts can do to a course - and how long it takes to heal.

ON THE TEE

Whatever tee you choose to play from, aid the superintendent by fixing your divots (especially on the par 3s) if there is a box of sand present or a bottle of sand on the cart. Pick up your tees, broken or otherwise; leaving them on the ground is inconsiderate and damages mowers and their reels. You'll be saving the staff a lot of clean-up time.

IN THE FAIRWAY

Always pick up your divot and put it back in place or fill the scar with sand from the bottle. Driving a cart? Avoid puddles and soft spots, follow the signs.

BUNKERS

If there are no rakes and your ball comes to rest in someone else's crater, pick it up, smooth the footprints with your shoe, take a good lie, and play away. Then smooth YOUR footprints in the bunkers. Enter and exit the hazard where it's flattest.

BALL MARKS ON THE GREEN

When your ball hits the green, it can leave a mark. So when you walk onto the green, look for your mark and if you find it, fix it! And fix two others, because, believe me, they'll be there.

When it comes to the course, remember golf's golden rule: Leave the course in better shape than you found it. Learn that rule — and learn to have fun — and you'll always enjoy the game no matter what you shoot. Embrace the experience.



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

RE Li³ON



IN A GAME OF INCHES, RELION'S INSIGHT BATTERY BEATS THE COMPETITION BY MILES



WE STAND BEHIND OUR PRODUCT 7 YEAR WARRANTY



A LITTLE WORKPLACE WELLNESS CAN GO A LONG WAY TO IMPROVING THE MORNING MAINTENANCE VIBE WHILE KEEPING YOUR CREW STRONG INTO THE AFTERNOON.

By Lee Carr

e want to PUMP" — (insert strong clap here) — "you up!"

That was the mantra of Hans and Franz, a popular weightlifting duo created by the comic giants Dana Carvey and Kevin Nealon for Saturday Night Live during its 13th season. Self-proclaimed "cousins of Arnold Schwarzenegger," they humorously jabbed at and insulted their "crybaby" audience to encourage strength and fitness. That 1980s TV show is worth considering for the productivity and well-being of your crew—a real-life, magnetic, positive approach to fitness.

That's the way Jackson Junker has created a successful personalized training company in Cleveland, Ohio — Junker Fitness. In his early teens, Junker suffered a herniated disc due to lifting heavy weights without proper technique. His family has a history of heart disease and diabetes, which he learned how to mitigate early on. Later, being a college all-American football player meant multiple

injuries and exposure to medical specialists who provided customized care. Through these trials, Junker developed a passion for being healthy and helping others.

"You have to consider mind as well as body," Junker says. "Cardio, nutrition and strength training are the components we work on." Fitness is one's overall well-being, and though exercise is a big part of that, it isn't everything. Though Junker specializes in customized training for individuals, corporate wellness is part of his growing business.

WORKPLACE WELLNESS

Multiple research studies and invested organizations will report the benefits of encouraging fitness — a reduction in anxiety, depression and mental illnesses, fewer missed days of work, fewer injuries on the job, improved company loyalty, and a happier and more relaxed working environment that's difficult to quantify. Investing in the health of employees

Regular > stretchina is one way to prepare your body for the rigors of golf course maintenance.

is a smart move.

There is a spectrum of incentives, including incentives to look at sleep. "That is huge for health and well-being because it recovers your body," Junker says. "Recovery is as important as exercise." And sleep, like exercise and nutrition, is highly personal. So, what is the benefit of a corporate challenge or businesses contributing to an individual's fitness?

Offering nutrition seminars or a corporate challenge is one way to show employees that you care as you create a more productive workplace (productivity after working out is noticeably higher). Also, as different generations have matured with different access to information about nutrition, health and exercise, it is a way to give your employees a common talking point. Human resources and management are recognizing these benefits for everyone.

Baseline information about physical exertion, deep breathing, nutrition, relaxation and recovery can open doors. "A lot of people don't feel comfortable working out at all, or in front of their peers," Junker says, "but a group effort is sometimes just enough to get them started and everyone has something to talk about at the water cooler. In a class, people don't feel singled out - they appreciate the support." People also need to hear about healthy options as "there is so much misinformation."

While wellness is important, "people still have to be active — the doctors say three times a week for 30 minutes to be heart-healthy and conscientious," Junker says. So many golf course maintenance workers are active, but due to fatigue, early starts and long hours — particularly in season — they have limited time to "work out." With an available 30 minutes, "strongly consider strength training because there is both heart and muscle benefit."

"Swimming is one of the best cardiovascular activities as there is some resistance from the water,



but it's important for people to keep mixing it up. People should aim for 'muscle confusion' so their bodies don't plateau and get used to their workouts," Junker says. "Swimming, the step-mill and jumping rope burn the most calories in the least amount of time"

Flexibility is significant, good posture helps avoid issues with the posterior chain (the muscles along the backside of the body, head to toe) and people also need to pay attention to opposing muscles. Problems in one area usually indicate that the opposing area is weak and creating undue pressure. For instance, with lower back problems, part of the solution will be to strengthen abdominal muscles, likewise if there are problems in the hips, it will help to strengthen the quadriceps.

When getting active, "the perfect order in a perfect world is dynamic stretching, then strength training, then cardio and then more stretching. Static stretching and calisthenics are better than nothing," Junker says. "Engage the full range of motion and be ready to rock."

LEADING THE WAY

Always ready to rock is Jon Jennings, superintendent at Shinnecock Hills Golf Club, in Southampton, New York. "Exercise is very important to me, so I make it a priority," Jennings says. "I exercise before work so when I get there, I feel ready to go."

Jennings runs more than 1,000 miles a year and has an ongoing streak, running at least one mile every day for more than five years.

(Fascinating inspirational side note: the longest recorded active running streak for anyone is more than 18,500 days. That's more than 50 years!) "Running is a great way to stay in shape and it's a good way to clear your mind," Jennings says. "It doesn't take a lot of time."

Jennings has worked at Shinnecock Hills for eight years, including 2018 when it hosted the U.S. Open, which means that, yes, he still found time to run at least a mile a day during that event. Clearly, fitness is meaningful for Jennings and he wants to help his crew achieve a similar feeling of preparedness every day. "I set a tone," Jennings says, "I look up, I smile and I'm enthusiastic."

Jennings and Ana Alvarez, golf maintenance operations manager at Shinnecock Hills, developed a morning routine to get everyone loosened up and focused for the day ahead. Inspired by a session about deep breathing and mindfulness at the 2019 Golf Industry Show, Jennings realized that deep breathing could be a good start.

The Shinnecock Hills team started a simple daily routine in February 2019 and carried it into the beginning of 2020. The routine begins with taking a minimum of five deep breaths for quiet, personal reflection. They then watch a video and play music during five minutes of cardio and stretching. "It's something we love to do," Alvarez says.

"We call on different people to choose how many breaths to take," Jennings adds. "It can be funny someone who is running late might say '10!', the max, or it can be a time for bonding. For instance, if people are worried about a sick loved one or are experiencing something difficult, they might choose more breaths. This is a solid team-building exercise as people can share about their lives. The camaraderie is great and everyone participates."

There are 10 people on the fulltime maintenance staff and in the high season that number can shift to 35. Every day, for just a few minutes, they are smiling and laughing and mentally preparing for the day ahead. For cardio, they follow a You-Tube fitness video on a big screen and play music. The video starts with stretching and other moves. It finishes with a pair of exercises: 30 seconds of jumping and 30 seconds of jogging in place. "At the end, we are winded by it," Jennings says. "I have to start talking right after we finish and sometimes I wish I had a minute!"

Music ranges from salsa to hip hop. "It has to have a pace that matches the video," Alvarez says. "There is one rule: there can't be any bad words or derogatory lyrics. We have a list of songs that work and a list of a few that don't."

It's obvious how joyful the activity is for all who are involved. "Our routine works for all age groups and ability levels," Jennings says. "It's great. When we finish, everyone is smiling and ready to work. No one is sitting there flat, behind their phone with a cup of coffee."

It's common for people to have better fitness routines - or be more active—when they are younger, or even with other jobs. That's life sometimes, for everyone, and fitness can ebb and flow. It's one of the reasons that small fitness changes in the workplace can have a remarkable impact. People are yearning to feel good, to feel healthy, and an environment that supports that is endearing.

Justin Mohler, 23, went to the gym five days a week when he was in college. He still hits the gym, but it's hard sometimes to find the time and motivation. Everyone can identify with the transition of moving and starting a new job. Mohler has been an assistant at Shinnecock Hills for about a year, and he's observed an active work environment. "Work can be like working out," Mohler says. "We're busy." The Shinnecock Hills staff is professional and strives to meet high standards so relaxed bonding in those early hours is a definite perk.

"Beginning employment at SHGC, the morning routine was brand new to me," Mohler says. "I thought, 'Is this serious?' But it really is effective. It seems a little funny when all of a sudden the crew is talking and then everyone stops and we breathe. But after the routine, people are engaged and it's like, 'OK, now we are ready.' It sounds a little goofy, but we do it every day."

PERSONAL AND PROFESSIONAL

Regarding fitness, it would be irresponsible not to acknowledge the boundary between personal and professional. Encouraging wellness and focus at work, or managers showing they care by offering seminars on yoga or nutrition, is very different than mandating non-work-related fitness activities.

"As an employer, I would err on the side of caution with that," Jennings says. Exercise boasts a myriad of benefits, but anyone starting a new routine or initiative should check with human resources or superiors if they are uncertain about the change.

"I do have side conversations with employees about how they are and check in about their families and their well-being," Jennings says. "But at work, the majority of our conversations are task-focused." Jennings has noticed more fitness conversations among superintendents and he recently spoke with a colleague who wakes up at 3 a.m. to go biking before heading to the course.

"I definitely see more management people speaking about wellness and fitness than I have in the past," Jennings says. And again, leading by example is the best way to show that fitness is important and worth the challenge. Being fit and healthy will keep you positive and capable of handling the highs and lows of any job. "It doesn't matter who you are," Jennings says. "You just have to make the effort. People who are inactive age much faster - moving makes a big difference."

Margo McGreal, who has been a physical therapist for 29 years, agrees. She got her start in the industry after volunteering in a physical therapy facility and, like Junker, she recognized how helpful she could be to others by providing the right care at the right time.

Having worked in several facilities with fitness incentives, range ing from doing a specific activity, like a fun run, or turning in results

out the door. Here are some healthy snack ideas to keep you ready to rock on the course

Make a **trail mix**: granola/raisins/pretzels/Cheerios/you name it. Put it in a few plastic bags or

Tortillas and peanut butter (almond butter, cashew butter, etc.). Take a tortilla, spread your choice,

Protein power is a wise choice and boiled eggs are easy to prep and keep.

at work or in your car. Dried fruit is also an easy go-to

Bags of **popcorn** vary in tastiness/nutrition according to the flavor, but they are compact, require only a microwave and will keep you full for a while.

for a blood pressure or glucose test, McGreal understands how incentives can be influential. Every employer is different, but fitness goals that are overly difficult to reach can be discouraging even if individuals are setting those goals for themselves. Go easy, but with consistency and determination. Leaders need to encourage health and fitness effectively, usually with a thoughtful, meditative approach and by setting a good example.

Strenuous exercise breaks down muscle tissue and that needs time to recover, McGreal says. "During exercise, your muscles use glycogen (energy) and strenuous exercise can make very small tears in the muscle," she adds. "During recovery, your muscles are repaired and this enables them to be stronger." Additionally, "as people age, they lose muscle mass and function - exercise helps prevent these losses." Working out, especially strength training, is important no matter what age someone is, but more critical as people grow older.

McGreal comes from an avid golf family and treats people from a variety of occupations, including golf course maintenance. She notes that in any occupation, it's important to work on a variety of tasks and "get help for heavy loads. If you are lifting something, bend your knees to protect your back." If there was a chance to add one cardio machine to a workroom, she would recommend, "Whatever people do and like best. Bikes and elliptical machines are less stressful for the joints since they

reduce weight and impact for ankles and knees."

Effort is key and remember to have fun. It's your job, your crew, your body and your choices about nutrition, strength and wellness. Where you work, the fitness culture might be just right. It might be time for small changes or bold moves. Whether it's on property or off, find an activity and motivation to "PUMP" — (insert strong clap here) - "you up!" You're no crybaby and Hans and Franz will applaud your effort. They will also be with you — in spirit — to help with the heavy lifting. GCI

Lee Carr is a Northeast Ohio-based writer and frequent Golf Course Industry contributor.



Hydration: For Optimal Performance

EFFECTIVE IN ALL SOIL TYPES

Your turf is grown on multiple soils and in multiple microclimates. Turf Fuel wetting agents are engineered with three or four modes of action to ensure consistently high performance across your property. One size does not always fit.

Found in Kraken, Vanguish, Aguanox

PREDICTABLE LONG TERM PERFORMANCE

The second your wetting agents enter the soil, microbes begin feasting on the carbon rich molecules. Turf Fuel's Capping technology protects the compounds from being degraded resulting in predictable long term performance.

COMPLETE MOISTURE CONTROL

Turf Fuel offers six soil surfactants to choose from based on your needs. Depending on your challenges and your goals, we have the product to give you control over your soil water and air balance.

Distance, Moisture Magnet







Empowering You to Grow Your Business™ Contact us to learn more | info@target-specialty.com











Forging the **Next Frontier:**

Innovation Updates from Bayer

s a global life science company, Bayer innovates and develops products to feed a growing population, and foster healthy environments where we all live, work, and play. With increasing challenges around climate change, pest resistance, and regulatory hurdles, game-changing innovation in the golf market is hard to come by. Luckily, the science at Bayer never stops. Below is a quick look at how Bayer innovation is helping golf course superintendents maintain the best playing surfaces possible.

Stressgard: The New Data That Proves It Protects Chlorophyll

Superintendents rely on fungicides to protect their high value playing surfaces from destructive diseases throughout the season. But what about abiotic stresses like heat, traffic, shade,

and drought? For over 25 years, Bayer has developed fungicides that deliver more than just disease control. Stressgard® technology, found in several Bayer solutions Signature™ Stressgard. Signature XTRA Stressgard, Tartan® Stressgard, Exteris® Stressgard, Mirage® Stressgard, Interface® Stressgard, Fiata® Stressgard® has long been known to improve turf quality and performance compared to standard fungicides, but more recently the science behind Stressgard has become much better understood.

By improving the plant's ability to photosynthesize, Stressgard fungicides help to mitigate a wide variety of both biotic and abiotic stresses. Photosynthesis produces all plant energy and drives subsequent physiological processes. Stressgard protects and maintains chlorophyll, a critical component in the process of photosynthesis. Recent research from Rutgers

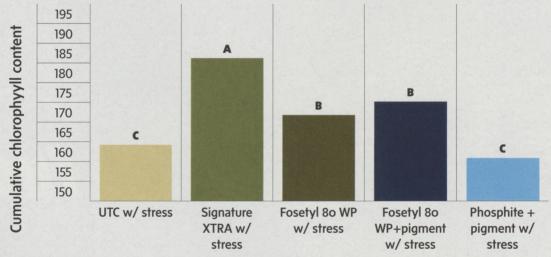
University shows just how effective Stressgard is in protecting chlorophyll and membrane stability, leading to dramatic improvements in turf quality under stress.

Years of dedicated effort of turf scientists across the world has solidified the science. No other fungicide technology has the breadth and depth of turf health research like Stressgard. This unique technology improves plant health and mitigates stress across an entire portfolio of active ingredients. This allows turf managers to properly rotate modes of action and build programs according to their needs while getting the additional plant health benefits proven by three decades of research.

Tetraniliprole: Poised to Tackle Your Toughest Insect Challenges

From annual bluegrass weevil (ABW) to white grubs, insects are constantly on the move posing new challenges to turf managers across the country. Bayer continues to develop innovation aimed at the growing issues with damaging turf insects on golf courses. Increasingly stringent regulatory requirements, environmental concerns, and restrictions on older chemistry are key issues facing the turf industry today. Couple that with evolving pest populations, migration into new geographies, and the development of insecticide resistance, new solutions are necessary to address the ever-changing insect world.

Luckily, Bayer has an ace in the hole with tetraniliprole; a new active ingredient coming



▲ Figure 1. Though it's been long known that Stressgard improves photosynthesis, recent research at Rutgers revealed that increased photosynthesis is due to Signature Xtra Stressgard maintaining overall chlorophyll content and stability under heat stress compared to competitive treatments and a negative control. The study further showed that Signature Xtra Stressgard increases membrane stability as well as positively affects chlorophyll content by limiting degradative enzymes (data not shown), all leading to improved turf performance under stress.





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

Your golfers want a greener course. You want a little more time in your day. Stressgard goes beyond disease control to deliver both, allowing you to maximize your potential on and off the golf course. So whether that means finding time to be a better Superintendent or even a super parent, Stressgard delivers. For turf you and your golfers can count on in conditions you can't, look to Stressgard.

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

SPONSORED CONTENT

Presented by Bayer



soon to the turf market that offers a wide range of benefits including grub, ABW, and chinch bug control. For several years, scientists at Bayer and leading university entomologists have put tetraniliprole to the test, evaluating its efficacy on some of the most damaging pests in both cool and warm season turf. This new chemistry continues to show exciting results, with great application flexibility, low environmental impact, and excellent efficacy on key insects such as the annual bluegrass weevil.

Innovation is an iterative process, which is why leading up to the launch of tetraniliprole, Bayer continues to trial this active ingredient on dozens of golf courses and university field sites across the United States. Real-world results are critical in understanding the true performance of new products in different geographies, on various pests, and on a diverse array of turf species. As the research continues, Bayer is enthusiastic to bring this technology into the turf market offering superintendents an exciting new solution for their most troubling insect pests – stay tuned!

Specticle® + Pre3: An Effective New Program to Combat Weed Resistance

We rely on herbicides to control the most problematic turfgrass weeds including possibly the worst of them all – annual bluegrass. As the most variable and widespread weed in both cool- and warm-season turf, *Poa annua* has documented resistance to almost every class of chemistry used to control it, including ALS inhibitors, glyphosate, microtubule inhibitors, and photosystem II inhibitor herbicides. Herbicide resistance in annual bluegrass is the major concern for those managing warm-season turf, who are running out of solutions to keep the weed at bay.

Luckily, our latest preemergence herbicide Specticle® has no documented resistance in annual bluegrass, but we must remain vigilant and stay out in front of any potential resistance. Sometimes, innovation comes in the form of using existing products in a new way or through a novel approach. With the help of several top university weed scientists, Bayer has researched and developed best practices for managing weed resistance with tank-mixing multiple modes of action. This strategy has shown to not only improve Poa control, but should significantly delay resistance over simply rotating active ingredients. The "PRE3" program from Bayer has been trialed and proven to deliver the most consistent control of Poa annua while reducing the potential



▲ Figure 2. Stressgard fairway program demonstration at a golf course in southern PA. Both fairways were sprayed on a 14-day schedule. Normal program consisted of various competitor fungicides across a range of active ingredients. Stressgard program consisted of commensurate rates and classes of chemistry within the Stressgard portfolio including: Mirage Stressgard, Tartan Stressgard, Exteris Stressgard, Interface Stressgard and Fiata Stressgard. Picture taken 10 days after previous application and hue angle was adjusted on the right picture to better see differences in green color/turf health. Differences are indicative of long-term plant health effects.



▲ Figure 3. Poa resistance to glyphosate applied at 32 oz/A.

of herbicide resistance. This tank mix of Specticle FLO + Tribute® Total + Simazine applied in late fall provides excellent season-long *Poa annua* control and has changed the way many superintendents deal with annual bluegrass in warm-season turf. •

Bayer is Committed

Bayer will continue to take on new and emerging challenges within the turf industry, drive innovation and work collaboratively with leading experts to deliver ground breaking agronomic solutions for golf course superintendents. This is Why We Science!

Tank Mixtures: The applicable labeling for each product must be in the possession of the user at the time of application. Follow applicable use instructions, including application rates, precautions and restrictions of each product used in the tank mixture. Not all tank mix product formula-



▲ Figure 4. Research trial conducted at North Carolina State University highlighting excellent *Poa* control with PRE3. Application made November 14, 2019. Pictures taken March 1, 2020

tions have been tested for compatibility or performance other than specifically listed by brand name. Always predetermine the compatibility of tank mixtures by mixing small proportional quantities in advance.

ALWAYS READ AND FOLLOW LABEL INSTRUC-

TIONS. Bayer Environmental Science, a Division of Bayer CropScience LP, 5000 CentreGreen Way, Suite 400, Cary, NC 27513. For additional product information, call toll-free 1-800-331-2867. www. environmentalscience.bayer.us. Not all products are registered in all states. Bayer, the Bayer Cross Signature, Tartan, Exteris, Mirage, Interface, Fiata, Specticle, Stressgard, and Tribute are registered trademarks of Bayer. © 2020 Bayer CropScience LP. All other trademarks are the property of their respective owners.



OFFICE SPACE

get the sense that most golfers don't have the slightest idea what goes into getting a course ready for play. If they did, they'd have a better understanding of what it means to be a superintendent. They'd also enjoy their rounds better because they'd see more detail in the handiwork that makes their playing field possible.

I'm the last one to romanticize the trade. If anyone is going to get all teary-eyed and choked up emotionally about what it takes to get a golf course in shape, let it be practitioners of the trade. The fact that no superintendent I know of has published a book-length memoir of what it actually feels like to be a career greenkeeper suggests to me the complexity of the task. By the time a potential author reached that point in his/her career, they'd probably simply be glad to be retired or know too many people they'd annoy if they wrote the truth about the business.

The real secret of the trade, as far as I can tell, is that for all the physical labor involved and the long hours required, the 100 to 150 acres comprising a superintendent's office might be the greatest workspace in the world. It's certainly the quietest, compared to the constant buzz and interruption from colleagues and customers that one usually finds in a 9-to-5 job.

As a caddie and golfer, I discovered early on that the greatest time to be on the course was first and last night. For one thing, no golfers. Another was the quality of light. And then there's simply that vast expanse of space to claim as one's own, shared only with animals and plants.

I used to love getting up at 5 a.m., making a quick breakfast and then hoping on my bicycle or walking the mile to the commuter rail station for the 15-minute ride on the Long island Railroad to the Woodmere Club in Nassau County, where I caddied. I'd get

there way before any golfers did - and often before any other caddies. The light of dawn lifted gradually across the fairways and the shadow effect of the grounds features highlighting their vertical intensity - as if a three-dimensional version of the shade contrasting that makes black and white cinema so evocative.

Walking the course always helps one appreciate the subtlety of the terrain and the effects of maintenance practices done, both right and wrong. Chris Tritabaugh, the superintendent at Hazeltine National Golf Club in Chaska, Minnesota, is a proponent of walking the course as much as possible, to the virtual exclusion of a cart or utility vehicle. The time is worth it, he figures.

As for translating that perspective into the minds of golfers, well, this is where things get tough. We live in a society of instant achievement and gratification, where you're supposed to be able to buy an improved game off the equipment rack and "miracle-grow" your roses into shape without effort. There are instant medicinal cures for insomnia, sure-proof methods for losing 30-pounds of gut fat, instant paths to success as a patented inventor.

Is it any wonder that most golfers don't have the slightest idea of the equipment needed, the expertise of the trained personnel who operate it or the turfgrass science that underpins it all? And then there are external, uncontrollable forces at play such as weather, water quality and soil structure. Added to that

is the way in which some golfers seek what they think of as "ideal playing conditions," by which they usually mean the pursuit of more speed to the greens and lushness to the turf.

I keep thinking of ways for superintendents to get the message across about what they are dealing with and how they can communicate it. The back cover of Pink Floyd's fourth studio album, "Ummagumma" (1969) shows the band's equipment - amps, drum kit, guitars, microphone booms, gong - arrayed symmetrically at a military airfield; it's their version of going into battle. Inspired by that scene, I've always thought that once a year, superintendents ought to showcase all of the maintenance equipment by the clubhouse, next to a wellstocked bar and buffet so that members could celebrate the work and appreciate what's involved in getting the course into shape.

Alternatively, superintendents could spend two hours a weekend morning hanging out by the first or 10th tees, talking up the golfers, introducing them to a crew member, explaining what's going on and answering questions. Anything to help cultivate interest and understanding.

The golfer education will make the job easier. But nothing can replace an awareness of the special beauty and private magic of the workplace. Only a greenkeeper (and the occasional crew member or caddie) knows what that office space is really like in the unique light of a golf course GCI



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 Twitter (@BradleySKlein).



Soakina u San Franciso

scenes

The relationship between TPC Harding Park and its community runs much deeper than one major tournament.

By Guy Cipriano

urfers know where to catch waves. Archaeologists know where to find artifacts. Kevin Teahan and Almar Valenzuela know where to escape the chaos of city life within one of America's busiest golf sites.

Lifelong Bay Area residents, Teahan and Valenzuela are dedicated San Francisco Recreation and Parks department employees. Teahan, the department's golf and turf manager, oversees the maintenance of five golf courses and dozens of athletic fields. Valenzuela tends to the turf at TPC Harding Park, where 125,000 annual rounds are played on the 163-acre site. A little knowledge from the locals before

SPOTLIGHT

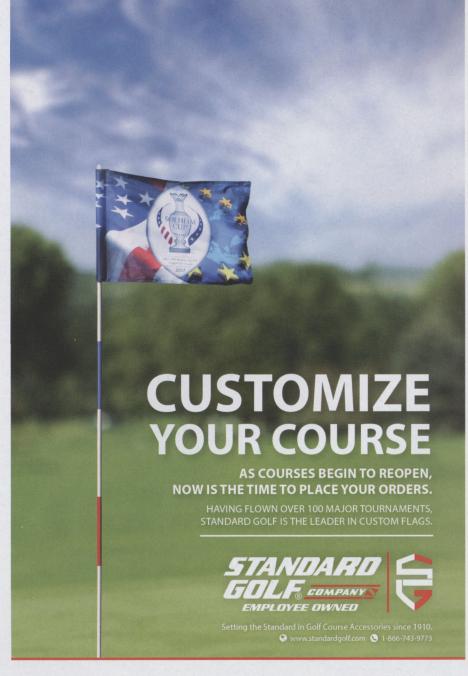
◆ Views of Lake Merced are part of the appeal at TPC Harding Park, a valued greenspace in San Francisco.

proceeding: the Fleming 9 rests inside the 18-hole TPC Harding Park layout.

Here's more local knowledge: the views from TPC Harding Park make the hustle worth it. With Lake Merced and a tricky fairway to hit in the foreground, Teahan achieves clarity by stepping on the back tee of the 467-yard 14th hole. Valenzuela momentarily wanders from the morning mayhem whenever he steps on the 11th or 16th tees. "You don't get play to rapid around to 11, especially in the mornings, that quickly," says Valenzuela, the course superintendent. "You get a quiet moment looking at the lake. And 16 is a nice, unobstructed view of the lake where you can look at the still waters and watch the sun."

Everything else at TPC Harding Park seemingly happens fast and loud. The championship course receives 75,000 annual rounds, with another 50,000 players relishing the coziness of the Fleming 9. Parkgoers range from children clutching a club for the first time to world-ranked players. The City of San Francisco established a relationship with the PGA Tour and TPC Network in 2010. A recent televised tournament bonanza is scheduled to continue when TPC Harding Park hosts the 2020 PGA Championship, marking the event's first appearance inside city limits, next month. The tournament had originally been scheduled for May.

But Teahan stresses that TPC Harding Park exists to provide quality recreation for his neighbors. Teahan learned the game at TPC Harding Park and Fleming 9 and jokes, "Whoever thought one day I would be running the place?" Teahan doesn't spend as much time on the site as Valenzuela and managing agronomist Geoff Planovich, because he oversees a team of more than 50 employees responsible for maintaining recreational spaces scattered throughout the city. The department's other golf courses include 108-year-old Lincoln Park, Alister



SCREEN-PRINTED FLAGS • EMBROIDERED FLAGS • DYE-SUB FLAGS • CLUB FLAGS



SPOTLIGHT



Were You Featured In This Issue? Reprints enable you to reuse your article and simply place it into the hands of your target audience. Having been featured in a well-respected publication adds the credibility of a third-party endorsement to your message Give yourself a competitive advantage with reprints. Contact us for more information regarding reprints and additional applications designed to meet your challenging

Use Reprints As:

· Sales Aids

market needs.

- Recruitment Tools
- Managed ePrints
- Trade Show Handouts
- Educational Programs
- · Employee Training
- Sales Presentations
- · Conference Materials
- · Media Kit Supplements · Direct Mail Campaigns

Call 800-456-0707 or email reprints@gie.net Mackenzie-designed Sharp Park and beginner-friendly Golden Gate Park. "They are all hidden gems," Teahan says.

Continual activity and recent big events suggest there's nothing hidden about TPC Harding Park. The course, after all, has hosted two World Golf Championship events, a Presidents Cup and a trio of Charles Schwab Cup Championship tournaments since 2005. Designed by the Golden Age duo of Willie Watson and Sam Whiting and opened in 1925, the region's best amateurs and nation's leading professionals visited TPC Harding Park for competitions throughout its first 40

City-mandated budget cuts beginning in the late 1960s caused conditions to deteriorate throughout the following three decades. When The Olympic Club hosted the 1998 U.S. Open, TPC Harding Park served as a spectator parking lot. The courses - one private, the other open to all - shared Lake Merced views and heady histories but little else by that time. In an inspiring reversal of golf fortunes, the courses now share places on the same championship calendar. The PGA of America announced TPC Harding Park as the 2020 PGA Championship site in 2014. The Olympic Club hosts the event in 2028.

Former USGA President and Bay Area resident Sandy Tatum led a spirited effort to revitalize TPC Harding Park. The course reopened Aug. 22, 2003 after a 15-month renovation. The glitz of a renovation and the glamour of hosting televised events never eliminated the communal vibe. San Francisco residents can play TPC Harding for \$64 and \$78, respectively, at peak weekday and weekend times. Seniors living within the city play the course for under \$50 on weekdays and all resident junior rates are under \$30. The incomparable value resonates with TPC Harding Park lovalists.

"We're extremely busy," Teahan says. "It's go, go, go. A lot of the locals who play here constantly really take ownership of the golf course. You'll see them out there on a green and they'll fix four or five ballmarks so the standard stays up. It's their course. We're more concerned with our daily play. It's nice to host a tournament, but we care a great deal about our average golfer."

Preparing TPC Harding Park for San Franciscans reguires daily hustle. Mechanics arrive at 4 a.m. to stage equipment. The crew reports an hour later. Valenzuela and Planovich lead a brief meeting before scurrying to the course. The sun rises as early as 5:47 a.m. in June and as late as 7:34 a.m. before the clocks change in the fall. The month, though, rarely affects the volume of play. TPC Harding Park is open all 365 days, a testament to its popularity, financial importance to the city and drainage prowess.

"We're down to the minute with every task," Valenzuela says. "We don't have a minute to spare and we try to manage our program according to the sunlight. There's a ton that goes into making sure everything gets ready for golfers. We don't have a day off (from play) like a lot of other courses, so the grass starts to show

◆TPC Harding

Park receives

75.000 rounds

Championship

next month.

per year. The

municipal course hosts

the PGA





coaches and my old teammates who play out there. It's just nostalgic. That's the best way I can describe it." Valenzuela started working at TPC Harding Park in 2003. Only 15 miles separate the courses and Valenzuela still encounters old coaches, team-

mates, friends and co-workers. "Seeing them day in and day out makes you feel at home," he

adds.

Narrower fairways, thicker rough and tournament infrastructure on the Fleming 9 - such is major championship life — have altered TPC Harding Park this year. But

the best views of TPC Harding Park, where major champions Ken Venturi, George Archer, Bob Rosburg, Tony Lema, Lawson Little and Johnny Miller competed as juniors, and everything municipal golf in San Francisco represents remain unimpeded.

"It was always a gem," Valenzuela says. "But just the visual aspect of what you get now, ... it's worth taking pictures and soaking it all in sometimes." GCI

Guy Cipriano is Golf Course Industry's editor-in-chief.

that and we sometimes have to baby it throughout the year."

Planovich, a Wisconsin native, joined the TPC Harding Park team in 2017 following a tenure "across the street" at The Olympic Club. The address change is most noticeable on Mondays.

"The biggest difference is not having that maintenance day," he says. "That maintenance day is very important, but we find ways to get stuff done. We still have to maintain the course at a very high level."

Whenever Planovich needs per-

spective on how conditions compare to previous years, he turns to Valenzuela, whose relationship with San Francisco's municipal courses extends to his childhood. Valenzuela grew up in Pacifica, home of Sharp Park. He played both courses as a teenager before shifting his focus to a golf career. A former PGA apprentice turned turf aficionado, Valenzuela has held operational and agronomic positions at both courses.

"Sometimes you get little flashbacks," he says. "When I was at Sharp Park, I was able to maintain



▲ The Club at New Seabury recently reopened its Ocean Course following a major renovation

SKETCHING A BLUEPRINT AND REMAINING ADAPTABLE ARE KEY TO ANY PROJECT.

eeping up with the times and remaining competitive are good reasons to renovate your golf course. For us, with an almost-60-year-old Ocean Course designed in 1962 by architect Bill Mitchell and a sister Dunes Course that had slight improvements 20 years ago, it was clear we should set our sights on a master plan and a multi-year, multimillion-dollar 36-hole golf course renovation.

As we start the 2020 season with our monumental project just completed, I'd like to insert a sigh of relief here, but it is hardly time to sit back and relax because our work is never done. I will take a little time, though, to reflect and share the complexities and benefits associated with the planning, permitting and construction of our restoration. If you're considering a bunker project,

looking to make refinements to improve playability or facilitate a major overhaul to your course, a well-conceived master plan can create a sustaining interest in your facility for years to come. It can also increase revenue and profits, lower operational costs, and contribute to a greener footprint.

As golf course superintendents, we constantly strive to improve our courses and enhance the golf experience. Entering my 29th season at the Club at New Seabury, my familiarity with every contour of our courses and my understanding of the seasonal elements and challenges (read: beach erosion) of our Cape Cod property have helped in how we approached our renovation. Having an esteemed architect in Bruce Hepner of Hepner Golf Design guide us in collaboration with Agriscapes Golf Course Construction was a bonus.

Understanding your members and the general clientele of your golfers coupled with knowing most every detail of your course is also important. And having knowledge of the other nearby properties can serve as a guidepost and a benchmark to identify, compare and

Dollar Spot

Brown Patch

Anthracnose
(on Poa annua)

Leaf Spot (Drechslera spp.)

Broad-Spectrum
Turf Disease
Control



For Broad-Spectrum Turf Disease Control, Contact Your Local Aquatrols Distributor or Visit: **Aquatrols.com/DOVETAIL**



Catch a YETI® with Aquatrols this season.



Scott Nickerson has worked nearly three decades at The Club at New Seabury in Massachusetts.

differentiate where your course is at and what you're looking to achieve.

Through the years, I've had a great staff to lean on and I've also worked with local and industry experts who collectively have supported and guided me through varied

challenges and achievements. Here are a few tips to consider as you plan your renovation:



• Identify your greatest assets and enhance them where you can.

The first step of any renovation or course improvement project, large or small, is to define what your goal is. What do you want to accomplish? It helps to analyze your existing course as well as to study what to improve and why - and, of course, to build on your course's greatest assets and determine what you want your result to be. Is your goal to improve aesthetics, make the course more challenging or create a more playable track regardless of the golfers' skill set? Do you want to offer different shot choices or add shot value? Perhaps it's all of these.

We had an experienced golf course architect in Hepner, who has designed and enhanced some of the more storied golf courses in the game. He listened to our concerns, identified the required areas of improvement and offered solutions. He also helped us begin the process by preparing a master plan that crystalized everything.

"THERE'S NO SENSE IN A MULTIMILLION-DOLLAR RENOVATION PROJECT IF YOU CAN'T INVEST IN THE EQUIPMENT AND MAINTENANCE STRATEGY TO SUPPORT IT."



With 36 holes, we had two distinct golf courses, so our maintenance plan and our design plan were based on the land and layout. With our small, executive inland course, everything was softer and greener for people to enjoy. They could

reach the green in two by playing the right tees, hitting their ball on the green and having it stay on the green. We redesigned this course for the average golfer looking to have a good time. To complement that with our Ocean Course, designed more for the avid, low-handicap golfer, we wanted to accentuate the natural ocean views, enhance the ambiance, playability and maintainability of the course. There's a reason people go to Pebble Beach, right? So, we developed a plan to accomplish aesthetic enhancements, new drainage, design variety and a full bunker renovation.

2. ADAPT TO CHANGING TIMES AND PROVIDE A CHALLENGE AND REWARD FOR ALL

Many circumstances may influence your plan and the need for your club or facility to renovate or remodel. Our courses were outdated and yours may be, too. With a massive leap forward in golf technology, the game has been transformed and course layouts have changed forever. We've seen golf balls evolve from wound to multi-layered to solid core; drivers are now oversized and speed injected; and golfers are more athletic and

fit and have increased their club speed to bomb it off the tee. So, is it all about length then? By moving bunkers, widening landing areas and repositioning

tees, we created challenges and rewards for golfers of all skillsets. You don' want your avid players challenged too much or your high-handicap golfers in trouble every time they hit the ball. We created a proper zone for golfers. The Ocean Course's 7,100 yards — generally plenty of distance for 99 percent of golfers - had bunkers and landing areas set up from back in the 1960s, when it was built and most golfers were using persimmon woods. Jack Nicklaus was probably hitting 260 with a driver, so we repositioned the landing areas and bunkers to meet the 21st century.

3. THE RIGHT MAINTENANCE

When mapping out your renovation, you should ultimately improve your maintenance plan and thus reduce your watering, fertilizer and chemical usage. We created native areas that included natural, tall fescue grasses and little bluestem. We also added wildflowers in some areas. We went from no natural areas to close to six acres of native areas on the Ocean Course. It helped define and bring a distinct look to the course, and it now resembles a links-style course with the ocean similar to Shinnecock Hills and National Golf Links of America. We enhanced the aesthetics from tee to green but kept the playability at a fair level.

As for investing in the right equipment, it was paramount for us and there are some great options today from aeration and specialty equipment to sprayers and GPS systems. I've seen firsthand how these advanced sprayers improve accuracy within an inch, which saves money and time when caring for your course. If you can design a five- to 10-year maintenance plan that coincides with your renovations, you will enhance the longevity of your investment. There's no sense in a multimillion-dollar renovation project if you can't invest in the

CONSTRUCTION

equipment and maintenance strategy to support it.

THREE STAGES TO THE PROJECT: PRE-PLANNING It's never too early to start. The first day we were serious about considering a renovation, the general manager asked me if I was going to the national conference. He recommended I talk with builders and architects because we had money to do some bunkers and other work. It took two years before we got things improved internally. There were discussions, negotiations and annual budget reviews. It took two years to get to the starting line.

PLANNING

There are a host of logistics and timelines when taking on a renovation. I recommend you have someone on staff who can run your crew because you're going to be pulled in multiple directions. Even though there's a renovation, you're still doing day-to-day work on your course. I can't stress how much preparation is involved and how many extra hands are needed.

THE RENOVATION

Once the builder and architect turn the area over to you for maintenance and they lay sod on the ground, it's now your responsibility to keep it alive and thriving. This brings you back to maintenance. You're now coordinating different crews. These all need to be part of the master blueprint.

WHAT-IFS? STORMS AND PANDEMICS WILL HAPPEN • I'd like to pat my peers on the back and say with hu-

mility that superintendents are probably the most adaptable professionals in the golf industry. There are always challenges. It's easier and more manageable if you plan for the worst-case scenario and prepare for it knowing it might happen than not being prepared and having it happen. We started in September and planned to shut down after Labor Day and then open on Memorial Day. Our unpredictable Cape Cod weather froze us out with snow in December and when we planned to come back with the finishing touches in March, we were greeted with the most unpredictable storm in our lifetime — a pandemic. No one could have prepared for what we are now facing with COVID-19. It forced us to sideline our workers. In some cases, we couldn't bring our employees back as we have laborers out of the country. There was a lot of work to be done with some unexpected snags - some larger than others. But we figured it out and got it done. GCI

Scott Nickerson is the director of agronomy at The Club at New Seabury in Mashpee, Massachusetts. He began his career in turf maintenance at Willowbend Golf Course before joining the New Seabury staff in 1992. He has attended UMass, St. Lawrence University and the Stockbridge School of Agriculture, receiving a certificate in turf management. He has been the lead agronomist at New Seabury since 1998 and is a member of the GCSAA and the Golf Course Association of Cape Cod.





REACH US ANY TIME AT SUBSCRIPTIONS@GOLFCOURSEINDUSTRY.COM TORO



Maneuvering tomaintain MacKenzie

Preserving the past and precise real-time decisions create an authentic Golden Age experience at popular Pasatiempo Golf Club.

By Guy Cipriano

arion Hollins developed it. Alister MacKenzie designed it. Juli Inkster grew up around it. Within Pasatiempo Golf Club are carefully restored bumps, barrancas and bunkers. The layers of historical and architectural significance inspire superintendent Justin Mandon each time he passes through the gates of the semi-private club in Santa Cruz, California. Now in his eighth summer at Pasatiempo, Mandon has enthusiastically entered the 100-acre site more than 2,000 times.

"There hasn't been a day where I have driven through that front gate and seen the Pasatiempo sign that I didn't want to be here," he says. "I haven't lost that."

It takes an enchanting place to produce extended employee zest. Pasatiempo captivates from the beginning of its story.

When business-minded and golf-talented Marion Hollins needed an architect to design the golf portion of a development overlooking the Monterey Bay, she turned to MacKenzie, a Golden Age giant who was completing Cypress Point Club, a revered private course 50 miles down the Pacific Coast. Hollins announced her plans for the Pasatiempo development on Jan. 12, 1928. She joined Bobby Jones, U.S. Women's Amateur champion Glenna Collett and British Amateur champion Cyril Tolley for the ceremonial first match 20 months later. MacKenzie became smitten with Pasatiempo and lived along the sixth fairway until his death in 1934. "He must have loved it beyond belief if he decided to live on the sixth hole," says architect Jim Urbina, who has spent more than 20 years restoring MacKenzie's work at Pasatiempo.

Hollins will enter the World Golf Hall of Fame in 2021. MacKenzie was enshrined in 2005. Inkster, Class of 2000, grew up along the 14th fairway, worked in the cart barn and snack shack, helped pick the practice range, and learned the game at Pasatiempo. The 14th fairway, coincidentally, features a severe barranca, creating strategic interest and mowing conundrums.

© PHOTOS COURTESY OF JUSTIN MANDON/ PASATIEMPO GOLF CLUB

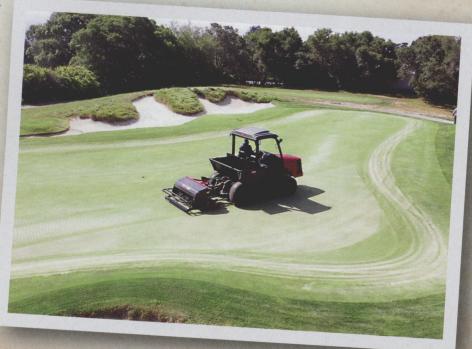
Pride and pedigree drive many

decisions at clubs designed during the Golden Age of American golf, a stretch beginning before World War I and ending before World War II filled with characters determined to design and build courses packed with ... well ... character. At Pasatiempo, pride and pedigree influence nearly every decision.

"Simply put," Urbina says, "I have restored three MacKenzie courses -The Valley Club of Montecito, Claremont Country Club and Pasatiempo - and I'm about to go to Canada to restore the only Alister MacKenzie course ever built in Canada at the St. Charles Club. If not for the superintendent's willingness to help the architect restore the genius of MacKenzie, those golf courses have no chance. The superintendent is the key to the preservation of those Golden Age designs."

Mandon understands the physical and historical terrain. He grew up 20 minutes from Pasatiempo in San Jose and learned the game on the region's architecturally sound and busy courses. But the opportunity to play Pasatiempo eluded him throughout his childhood. He experienced the course for the first time at 19. "I was completely blown away," he says. "I had never seen anything like it before."

The 14th hole, where Inkster grew up and MacKenzie molded strategy into the land, left an indelible impression. Ditto for the 16th, **◆**Opened in 1929, Pasatiempo Golf Club is considered one of Alister MacKenzie's finest designs.



▲ The Toro Outcross 9060 helps the team at Pasatiempo Golf Club complete multiple tasks, including deep-tine aeration on greens.

TORO.

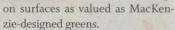
a hole concluding with a severely sloped green featuring nine feet of elevation change. Looking back on it, every hole influenced Mandon's future. He left the Olympic Club, a frequent major championship site in San Francisco, to begin maintaining MacKenzie in 2013.

His team preserves what Mackenzie intended by integrating modern practices and equipment into a continually evolving agronomic program. Preservation and precision are pillars of the program.

Mandon describes Pasatiempo's putting surfaces as "old, push-up Poa greens." An abundance of play – Pasatiempo supports more than 40,000 rounds per year – tests the durability of the Poa annua, resulting in diligent cultural practices such as a monthly deep-tine aeration to produce the high-level conditions expected by golf enthu-

siasts from Northern California and beyond.

A recent purchase possessing characteristics of a tractor and utility vehicle, the Outcross 9060 from Toro, has aided in the deep-tine process. The combination of 4-wheel steering, 4-wheel traction drive make Outcross 9060 highly maneuverable, stable and extremely turf-friendly for usage



Incorporating recycled water into irrigation practices following the completion of an onsite tertiary treatment plant in late 2017 affected agronomics. The shift protected Pasatiempo's long-term water future – the club also has access to potable and well water – yet *Poa annua* is sensitive to the higher salinity in recyled water. Salts accumulate within the thatch and organic matter throughout the summer and turf decline can occur late in the year



Rain is common in Santa Cruz, California from late October until early April and Pasatiempo Golf Club receives most of its 40 inches of annual precipitation during that stretch. Let superintendent Justin Mandon explain how the soggy season affects mowing decisions on cleverly contoured Alister MacKenziedesigned greens.

"We have a full Toro fleet and we either walk-mow or use a triplex depending on the time of year," he says. "It's important for us to walk mow during certain times of the year. It's not unusual for us to get three inches of rain and go walk mow the next day. We do a combination of triplex mowing and walk-mowing on the greens throughout the rest of the season."

Mandon's team mows four acres of *Poa annua* greens using Toro Greenmaster Flex 1021 walking and Toro Greensmaster 3400 TriFlex units. The surfaces have been thoughtfully restored over the past two decades to resemble what MacKenzie's team initially sculpted.

"They have extreme contours," Mandon says. "When you have contours like that, you have to make sure you are choosing the right greens mowers to get the right cut. If you don't have a greens mower set up right or it's not the right model or type of greens mower for these type of contours, you're not going to get the cut and accuracy that you are looking for. Whether it's the Flex walking mower or the Flex triplexes that we use out here, that type of technology is extremely important to us to be able to maintain these greens without causing damage at the level and expectation that golfers expect."



▲ Mandon

without proper drainage. Deep-tine aeration is required to improve gas exchange and water infiltration through the profile of the 91-year-old greens.

"Typically, in the past, you would buy a deep-tine aerator and you would buy a specific tractor for the aerator," Mandon says. "But it was a tractor that wasn't really big enough to do anything else on the golf course and it wasn't small enough to do other things. It sat in the barn. When the Outcross came out, I said, 'Let's get one here, demo it, put a deep-tine aerator on it and take it across the green.' If it could go on greens, I knew we could also use it for other applications. It might be a little more expensive than buying the traditional tractor, but because it's so versatile, I figured it could make sense from an ROI standpoint. Once we took it on the greens and realized it was going to work, it just

ended up being a home run for us. It's easy to use and the crew loves it. I couldn't imagine not having it now."

The crew uses the Outcross 9060 monthly, with fairway aeration and topdressing among its other current applications. "There are so many different applications for it," Mandon says. "We're just getting started." How would MacKenzie have reacted to seeing a vehicle weighing more than 5,000 pounds with 59 horsepower contributing to the maintenance of Pasatiempo's fascinating greens and fairways? "I don't know what he would think," Mandon says. "But he probably would have thrown a couple of horses back in the barn and grabbed that Outcross right away."

Operator savvy and Toro irrigation technology are also helping Pasatiempo produce pleasant playing conditions and aesthetics. The irrigation system was renovated in 2010 and updated platforms, including the

Presented by Toro

TORO.

Toro Lynx Central Control System and Lynx Mobile App, have been incorporated into the water management program. Pasatiempo features 66 irrigated acres of Poa annua and overseeded ryegrass surfaces. The Lynx Mobile App allows an operator to control irrigation from a smartphone or tablet and offers instant access to records and hole-specific conditions. A longtime proponent of using a handheld radio to control heads, irrigation technician Bill Keller, a golf industry veteran and former superintendent, has embraced the mobile technology.

"Our irrigation technician downloaded the app on his phone and he can't stop using it now," Mandon says. "He's finding himself to be so much more productive by using (Lynx Mobile App) technology. You have to continue to educate your crew about what technology can do. There's nothing wrong with the way things have been done before, but you need to try new things because it will help you get more done and make your day easier."

Water management often determines the golfer experience - and career fate of a superintendent - in a place with damp and dry extremes such as Santa Cruz, California. The magic of MacKenzie wanes without calculated decisions and a reliable irrigation system.

"In this part of this country, where we don't get rain from May until October, your success is often determined by your irrigation system," Mandon says. "I tell everybody who comes here that might have worked in another part of the country that



your water management is it. Water is scarce, it's expensive and you're not getting rain to help you during the season. Every single wet and dry spot on the golf course is a direct reflection of how you are managing the irrigation system. You can't blame it on the rain. It's all on you."

Preserving Pasatiempo is a quest without a defined ending. Mandon and his team, which includes assistant superintendents Phil Kuhlmann and Jack York, squeeze restorative projects between daily maintenance. This past spring, for example, the crew used six weeks without play to peel back grass to reintroduce nuances around fairway bunkers. Work continues on 25 acres of non-irrigated native areas established in 2010, trees are continually being assessed and managed, and mowing lines are frequently studied and altered.

Mandon also recently collaborated with Urbina to reduce the number of tee boxes on each hole, reintroducing the Golden Age design mentality of one or two tee boxes on most holes. Urbina uses a six-inch binder of old photos and letters collected by Pasatiempo historian Bob Beck to guide design decisions. Dean Gump, the club's superintendent from 1981 to 2008, first handed Urbina the binder in the mid-1990s.

Once a superintendent studies the binder, the job description becomes implied. MacKenzie's intent continues to shape Pasatiempo's present and future.

"It's our duty as a golf course superintendent and as a department to continue that, maintain that and preserve that," Mandon says. "And it drives so much of what we do on the golf course." GCI

▲ Severe contours, including this one on the 14th fairway, are part of the maintenance challenge at Pasatiempo Golf Club.

66 Water is scarce, it's expensive and you're not getting rain to help you during the season. Every single wet and dry spot on the golf course is a direct reflection of how you are managing the irrigation system. You can't blame it on the rain. It's all on you."

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.

3-POINT HITCH SOD CUTTER

he Frontier "Middle Buster" 3-point hitch frame was converted into a sod cutter. The roller is recycled from a John Deere 2653A triplex mower, which includes the brackets for adjusting the sod cutter blade depth. The sod cutter blade is a thin, strong, recycled John Deere bedknife diligently sharpened. The framework was from recycled steel in inventory that is welded in place. The sod cutter normally cuts to an approximately 2-inch depth

of the warm-season grasses, though varying depths are easily adjusted as required. There were no costs for materials and it took less than a day to build. The sod cutter attachment, which is bolted to the framework, can be easily removed and additional attachments, such as the original chisel plow, a ripper and a pipe trench digger, can also be bolted to the 3-point hitch. Superintendent Denny Kerr (a retired Navy Seabee), grounds crew member Julian Wells and managing partner/owner Brad Thompson created and built a great idea at the Bayou Vista Golf Course in Gulfport, Mississippi.











REEL HEIGHT ADJUSTMENT TOOL

his modified R & R Mowing Height Adjustment Tool is used on John Deere 7700 fairway mowers and John Deere 2500 triplex greens mowers. The dial gauge is removed and the existing bar stock is drilled and tapped with two new holes to accept M5 by 20 Allen Head Bolts, with locking nuts on the reverse side. A digital caliber is used to adjust the bolts to the desired mowing height. The bar is used the same as with the dial gauge, with the height adjusted until the shoulder of the bolt touches the bedknife. It cost about \$1 in parts, instead of replacing an approximately \$85 dial gauge, and about five minutes labor for the conversion. Superintendent Denny Kerr, grounds crew member Julian Wells and managing partner/owner Brad Thompson created and modified another great idea at the Bayou Vista Golf Course in Gulfport, Mississippi.

Terry Buchen, CGCS, MG, is president of Golf Agronomy International. He's a 51-year, life member of the GCSAA. He can be reached at 757-561-7777 or terrybuchen@earthlink.net.

ADVERTISER	WEBSITE	PAGE
Aqua-Aid Solutions	aquaaidsolutions.com	43
Aquatrols	aquatrols.com	COVER, 7, 33, 44
Bayer	backedbybayer.com	5, 24-26
Earthworks	earthworksturf.com	2
PBI-Gordon Corp.	pbigordonturf.com	9,31
RELION	relionbattery.com	15
Target Specialty Products	target-specialty.com	17
Standard Golf Company	standardgolf.com	29
Toro Company	toro.com/rm5010h	36-39
Turfco MFG, Inc.	turfco.com	23, 30

FOR SALE

Discount Small Engines & Parts

Small engines & parts from Briggs & Stratton, Kohler, Tecumseh, Robin and more.

www.smallenginesuppliers.com

Also, look up your own parts and buy online at www.smallenginepartssuppliers.com

MERGERS & ACQUISITIONS

MILLER MANAGEMENT ASSOCIATES

CAROLINA GOLF COURSES FOR SALE TURN KEY NICKLAUS \$2 MILLION UPSTATE SC GEM \$975,000

> www.mmagolf.com brett@mmagolf.com 828-775-7765

NATIVE SEEDS

Largest producer of native seeds in the Eastern U.S. Hundreds of species of grass and wildflower seeds for upland to wetland sites. Bioengineering material for riparian areas and erosion control. Contact **ERNST SEEDS** today. www.ernstseed.com - 800/873-3321

READ THE DIGITAL EDITION OF GCI TODAY!





ZOOMING RIGHT ALONG!

y mother-in-law says life is like a wagon wheel and one full revolution of the wheel is one year of your life. When we are born, we are on the outside of the wheel and it takes much longer to complete that revolution compared to how fast the axle is turning.

You guessed it: each passing year, you move a little closer to the center of the wheel and before you know it, life is passing you by. I swear, these days a week feels like three days, a month feels like two weeks, and a year feels like six months.

It seems like only yesterday we were first learning about the COVID-19 pandemic. And in the four months since then, we have endured everything from lockdowns and stay-at-home orders to record rounds played and all sorts of things in between.

Golf never closed in North Carolina, so I cannot speak of the experiences many of my peers endured with layoffs, furloughs, course closures and minimal maintenance. My heartfelt prayers go out to each of you who faced those experiences for your strength and courage.

I work for a private club and, like most, we curtailed guest play and still set new records for the number of rounds played four conI think like the rest of you we are all ready for time to zoom right on and put 2020 in the rearview mirror. My grandmother used to always say do not wish your life away, but if she were still alive today, I think she might give us all a pass this time."

secutive months. This even includes a stretch of more than 40 days when golf carts were not permitted! It was good to see many folks walking, and I am happy to report some still are even though carts are once again available. Public courses in and around Charlotte are also packed. For the first time, golf seems to be surviving an economic downturn.

Back to our wagon wheel. Just like that ... it's July. Summer has arrived but it's already half over. I don't know about you, but I find it ironic the days are zooming past while Zoom has become the preferred platform for meetings, chats and hangouts.

I had never heard of Zoom prior to the pandemic. But in the last four months, I have attended three green committee meetings and multiple association-related events via Zoom. I even participated in virtual happy hours with some friends for a few weeks at the very onset of the lockdowns.

It is probably still a little too early to predict whether turf conferences and trade shows

will take place this off-season. We are already seeing notifications for virtual field days as restrictions remain in place. Even if conferences can take place, I am betting Zoom is somehow incorporated.

Is this the new normal, as they say? I don't know. Like

the rest of you, I think we are all ready for time to zoom right on and put 2020 in the rearview mirror. My grandmother used to always say do not wish your life away, but if she were still alive today, I think she might give us all a pass this time.

The other day I chuckled when I saw a meme where someone wondered if their mother's offer to knock them into next year still stood. Humor is an excellent way to help cope with stress. And speaking of humor, did you see the European Tour's Zoom conference call last month?

Over the past couple years, the European Tour has used its star players and social media to elevate and promote their brand with witty videos, including the Content Committee, Awkward Reporter and, of course, Moliwood, that highlight players' personalities and make you want to watch.

But they are not just comedians. Who could forget the time Andrew "Beef" Johnston chauffeured a 9-year-old superfan to the course on his birthday and stopped along the way to pick up Justin Rose and Henrik Stenson? I do not know about you, but I find it hard to imagine American stars performing similarly, considering their reluctance to wear a microphone for the PGA Tour restart.

Here's hoping it will not be long before fans are able to return and we all look back on this period of our lives to reflect on the lessons learned. Until then ... GCI



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



Patented, best-in-class surfactant technologies providing superior moisture management control

OARS HS

Increases number of hydrating sites to improve moisture retention

Provides superior soil moisture uniformity

Redistributes humic coatings from hydrophobic soil particles

Reduces drought stress

OARS PS

Controls soil water repellency and water management efficiency

Increases penetration of water and length of activity in soil

Redistributes humic coatings from hydrophobic soil particles

Provides firm, fast surfaces



INNOVATIVE TECHNOLOGIES
CUSTOMIZED SOLUTIONS

Turf Can't Do Yoga.



De-Stress with Our Fertilizer Trio



- Enhances Root Development & Respiration
- Increases Microbial Population Due to Soluble Carbon Content



- · Improves Nitrogen Metabolism
- Improves Overall Turf Quality & Performance



- Accelerates Photosynthetic Activity
- Improves Abiotic Stress Tolerance by Creating a Stronger Plant





