

★ SPECIAL DOUBLE ISSUE ★ HOLIDAY BONUS ★

Golfdom

SINCE 1927—The Resource for Superintendents // Golfdom.com

NOVEMBER/DECEMBER 2023

INSIDE!

Supers'
AWARDS
Choice

A new (old) look

Architect Gil Hanse returns The Olympic Club's Lake Course to its original glory

PLUS

2023 RESEARCH ROUNDUP

STATE OF THE INDUSTRY REPORT

SHOULD I STAY OR SHOULD I GO?

AVERAGED ESTIMATED ANNUAL OPERATING COST

	GASOLINE ¹	DIESEL ²	SAND STAR E
Annual Fuel/Electricity Cost	\$1,770.50	\$1,830.40	\$59.49
Battery Replacement 7-year Life Expectancy Amortization	5-year RoyPow Battery Warranty Non-Prorated		\$428.00
Engine Maintenance	\$1,490.00	\$980.00	\$0.00
Hydraulic Oil Change	\$220.00	\$220.00	\$0.00
Total Annual Cost	\$3,480.50	\$3,030.40	\$487.49
Annual Operational Savings Gas/Diesel Vs Electric	\$2,993.01	\$2,542.91	

Based on 416 total hours per year. ¹Gasoline cost estimate: \$3.50/gallon. ²Diesel cost estimate: \$3.70/gallon.
³Battery life expectancy amortization over 7 years

✓ ECO-FRIENDLY

The Sand Star E, equipped with a Lithium Ion battery pack, offers the QUIETEST and most ECO-FRIENDLY groomer in the market.

✓ TECHNOLOGY

The Sand Star E features an industrial- grade motor and controller. The onboard diagnostics EXCEEDS all INDUSTRY STANDARDS.

✓ DURABILITY

Superior construction and materials combine to ensure INDUSTRY-LEADING LONGEVITY across our product lines.

Exceptional Service and Products Since 1967
smithco.com



**SAVE 90%
ON ANNUAL
OPERATING
COSTS**

ROBUST LITHIUM ION BATTERY

5-year, non-prorated battery warranty

50 DIFFERENT ATTACHMENTS

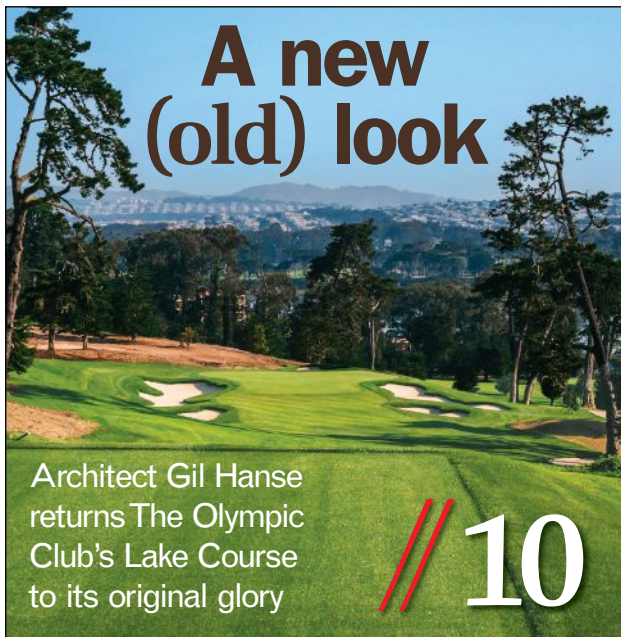
SAND STAR E

Smithco
WE TAKE YOUR TURF SERIOUSLY

Golfdom // 11/12.23

VOL. 79 // NO. 12

SINCE 1927—The Resource for Superintendents // Golfdom.com

**A new
(old) look**

Architect Gil Hanse returns The Olympic Club's Lake Course to its original glory

// 10



SECOND ANNUAL

Supers' Choice
AWARDS

2023

Our readers share their top products from 2023 and all-time favorites

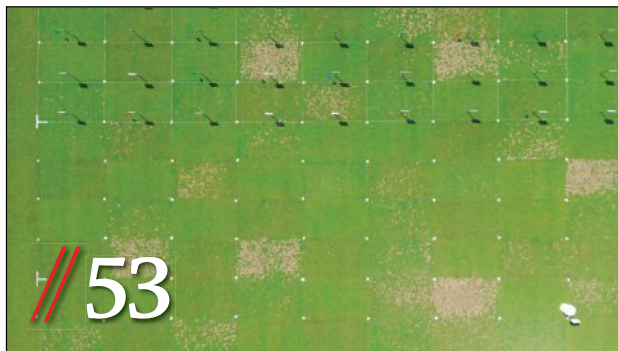
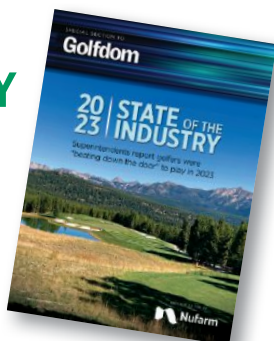
// 18

COLUMNS

- // 6 **Keeping up with The Jones**—Seth Jones
Jones reflects on 2023, a busy year for readers and the Golfdom staff
- // 38 **Matt's Memories**—Matt Shaffer
Shaffer examines the pros and cons of making the move to a new course
- // 58 **The Turf Doc**—Karl Danneberger, Ph.D.
Danneberger explains how you can be prepared for an El Nino in the new year
- // 59 **Off the Record**—Mike Kenna, Ph.D.
Kenna shares exciting news about the USGA's Turfgrass Information File

STATE OF THE INDUSTRY

- // 41 **The boom keeps its momentum in 2023**



SUPER SCIENCE

- // 53 **The true value of USGA research**
- // 54 **Revisiting the research projects we highlighted in 2023**

DEPARTMENTS

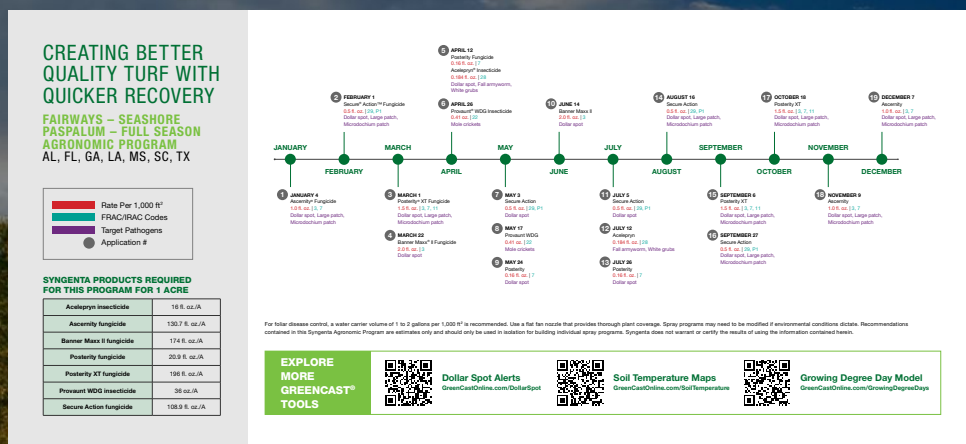
- // 8 **Starter** // 32 **At the Turn** // 60 **The 19th Hole**



COVER PHOTO USED WITH THE PERMISSION OF THE OLYMPIC CLUB

MAP OUT YOUR AGRONOMIC PROGRAM WITH A POSTER

Using our agronomic programs can help you manage resistance while optimizing turf quality with a comprehensive, season-long guide to apply the best products at the right time. With 50+ agronomic programs available, you can easily find the right one for your course and turf type.



SCAN THE QR CODE TO ORDER
 YOUR COMPLIMENTARY POSTER(S)

GreenCastOnline.com/Programs



@SyngentaTurf

syngenta[®]

All photos are either the property of Syngenta or are used with permission.

© 2023 Syngenta. Important: Always read and follow label instructions. Some products may not be registered for sale or use in all states or counties and/or may have state-specific use requirements. Please check with your local extension service to ensure registration and proper use. The trademarks displayed or otherwise used herein are trademarks of a Syngenta Group Company. All other trademarks are property of their respective third-party owners.

®

THE ORIGINAL TURBINE BLOWER SINCE 1945

Direct Drive
MEGA

New **Blitz**



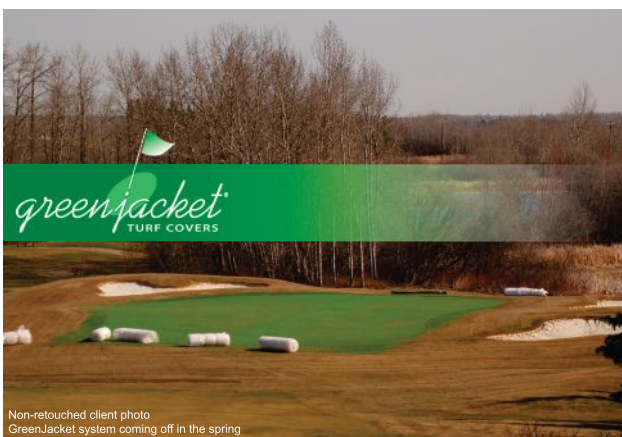
**BUFFALO
TURBINE**



MADE IN THE USA

**SAVE
TIME** | **SAVE
MONEY** | **MOVE
DEBRIS
FAST**

(716) 592-2700 | BuffaloTurbine.com



PROVEN BY 25+ YEARS OF SUPERINTENDENT SUCCESS.

- Patented **IMPERMEABLE** Reinforced Winter Cover Turf Protection System.
- PERMEABLE** Lace Coated Grow-In Covers increase healthier turf growth.

Find out how the GreenJacket System
can make a difference for your golf course.

Call **888-786-2683** or Email info@greenjacket.com
See Research at GreenJacket.com

Golfdom

Seven-time winner of the national **Folio: Award** for editorial excellence

EDITORIAL

EDITORIAL DIRECTOR, EDITOR-IN-CHIEF & ASSOCIATE PUBLISHER Seth Jones

785-542-2627 / sjones@northcoastmedia.net

EDITOR Christina Herrick
216-675-6009 / cherrick@northcoastmedia.net

ASSOCIATE EDITOR Rob DiFranco
216-675-6001 / rdifranco@northcoastmedia.net

ASSOCIATE EDITOR Brian Love
216-675-6000 / blove@northcoastmedia.net

DIGITAL MEDIA SPECIALIST Sydney Fischer
216-675-6002 / sfischer@northcoastmedia.net

ART DIRECTOR Pete Seltzer
216-706-3737 / pseltzer@northcoastmedia.net

CONTRIBUTING EDITORS

Karl Danneberger (*Science*), Alan FitzGerald,
Mike Kenna (*Research*), Jim Moore



BUSINESS

CLEVELAND HEADQUARTERS

1360 EAST 9TH ST, 10TH FLOOR, CLEVELAND, OH 44114

GROUP PUBLISHER Bill Roddy
216-706-3758 / broddy@northcoastmedia.net

PUBLISHER Craig MacGregor
216-706-3787 / cmacgregor@northcoastmedia.net

WESTERN REGIONAL SALES MANAGER Jake Goodman
216-363-7923 / jgoodman@northcoastmedia.net

EASTERN REGIONAL SALES MANAGER Dan Hannan
216-363-7937 / dhannan@northcoastmedia.net

SALES & DIGITAL AD COORDINATOR Courtney Jaskiewicz
216-675-6003 / cjaskiewicz@northcoastmedia.net

SR. EVENT MANAGER Allison Blong
216-363-7936 / ablong@northcoastmedia.net

SR. MGR., PRODUCTION SERVICES Terri Johnstone-Mueller
216-978-9622 / tjohnstone@northcoastmedia.net

SR. AUDIENCE DEVELOPMENT MANAGER
Antoinette Sanchez-Perkins
216-706-3750 / asanchez-perkins@northcoastmedia.net

AUDIENCE MARKETING MANAGER Hillary Blaser
216-440-0411 / hblaser@northcoastmedia.net

MARKETING/MAGAZINE SERVICES

SUBSCRIBER, CUSTOMER SERVICE
847-513-6030 / golfdom@omedia.com

LIST RENTAL Brahm Schenkman
800-529-9020 / bschenkman@infofirefory.com

REPRINTS & PERMISSIONS Wright's Reprints
northcoastmedia@wrightsmedia.com

CORPORATE

PRESIDENT & CEO Kevin Stoltman

VP OF FINANCE & OPERATIONS Steve Galperin

VP OF CONTENT Marty Whitford

VP OF MARKETING Michelle Mitchell

VP OF GRAPHIC DESIGN & PRODUCTION Pete Seltzer

Golfdom does not verify any claims or other information appearing in any of the advertisements contained in the publication, and cannot take any responsibility for any losses or other damages incurred by readers in reliance on such content. The views and opinions expressed by Golfdom's contributors are those of the authors and do not necessarily reflect the official policy or position of Golfdom or North Coast Media.

Golfdom welcomes unsolicited articles, manuscripts, photographs, illustrations and other materials but cannot be held responsible for their safekeeping or return.

North Coast Media LLC provides certain customer contact data (such as customers' names, addresses, phone numbers and e-mail addresses) to third parties who wish to promote relevant products, services and other opportunities which may be of interest to you. If you do not want North Coast Media LLC to make your contact information available to third parties for marketing purposes, simply call 847-513-6030 between the hours of 8:30 a.m. and 5 p.m. CT and a customer service representative will assist you in removing your name from North Coast Media LLC's lists.

GOLFDOM (ISSN 1526-4270), Copyright © 2023 by North Coast Media, LLC is published monthly except for a combined November/December issue and an additional Spring issue by North Coast Media, 1360 East 9th Street, 10th Floor, Cleveland, OH 44114. Call (847) 513-6030 to subscribe. Periodicals postage paid at Cleveland OH 44101-9603 and additional mailing offices.

POSTMASTER: Please send address change to GOLFDOM, PO Box 2090, Skokie, IL 60076.

Subscription rates: For US, Canada and Mexico, 1 year \$58.95 print and digital; two years \$88.95 print and digital. All other countries, 1 year print and digital \$109.95, 2 years \$169.95. For air-expedited service, include an additional \$75 per order annually. Single copies (prepaid only) \$10 plus postage and handling. For current single copy or back issues, call 847-513-6030. Printed in the U.S.A. All rights reserved. No part of this publication may be reproduced or transmitted in any form by any means, electronic or mechanical including by photocopy, recording, or information storage and retrieval without permission in writing from the publisher. Authorization to photocopy items for internal or personal use, or the internal or personal use of specific clients is granted by North Coast Media, LLC for libraries and other users registered with the Copyright Clearance Center, 222 Rosewood Dr, Danvers, MA 01923, phone 978-750-8400, fax 978-750-4470. Call for copying beyond that permitted by Sections 107 or 108 of the U.S. Copyright Law.





ULTIMATE
2023 HOLIDAY
GIFT GUIDE

Gifts for the Team

- ☐ Carhartts
- ☐ Dryjays
- ☐ Vibe Cups!!
- ☐ Snapbacks
- ☐ Taylor Swift tickets

Call
Standard Golf
800 - 553 - 1707

Buy more
dog treats!

Holiday party
December 16th

VIBE CUPS, DISTRIBUTED
BY STANDARD GOLF

Standard
@StandardGolf

From Golf Ball W
Maintenance Too
years.

© Cedar Falls, IA

1,539 Following 1,226

Tweets



“Sitting next to the Solo Stove on a beautiful fall Kansas day, I told my wife that, in hindsight, this year felt really long. Maybe it was because we did so much.”

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

A busy but fun year

As I prepared to write this month’s cover story on the recent work at San Francisco’s Olympic Club, I picked up my iPhone to refresh my memory of what I saw when I played the course. I scrolled back to the summer, trying to remember when it was that I was there. Before or after July 4th? Before, I think.

Lost in a cavalcade of photos — Wrigley Field, camping with the kids, Starlink floating by in the night sky — I finally gave up and consulted my calendar. *It was just seven weeks ago?* For some reason, it felt like it was months ago.

Sitting next to the Solo Stove on a beautiful fall Kansas day, I told my wife that, in hindsight, this year felt really long. Maybe it was because we did so much.

It was a busy, productive year, both personally and professionally. This year, the team here at *Golfdom* created our first-ever Tour Guide issue, where we profiled 22 superintendents hosting professional tournaments, along with a complete list of every tournament and its host su-

perintendent. We created the second annual Supers’ Choice Awards and the 2023 State of the Industry Report, both in this issue.

I made 18 business trips, including one to Canada and one to Italy. I saw Major League Baseball games in Kansas City, Oakland, Cleveland, Chicago and Boston (the game at Wrigley Field coincided with the Chicago Air and Water Show; at Fenway, I was able to get on the field before the first pitch; and in Oakland, they chanted, ‘Sell the team!’) I took my daughter to her first college recruiting trip. I watched my son lead his soccer team in scoring. Sadly, I gave two eulogies.

2023 was a busy but fun

year. In creating this issue’s State of the Industry Report, sponsored by Nufarm, I got the same impression from GCSAA chapter presidents around the country. Without hesitation, we were told that golf courses were packed, even compared to 2021 and 2022. We were told that, for many, the labor situation was improving. The weather, for the most part, was better than cooperative.

Late in the magazine’s publishing cycle, I called several trusted sources to get their feedback and comments for our Supers’ Choice Awards. You won’t see my friend Tim Davis, superintendent at Legacy Ridge GC in Denver, quoted anywhere else in this issue, but our catch-up

conversation summed up the mood of this issue. Tim says right after he put out fertilizer in the spring, it rained for three straight days, the course was as green as it’s ever been, golfers were thrilled, and they set a record for both rounds played and revenue. As he said, it was the year that everything came together.

A day later, I got a call that sounded like it was made from a tin-can phone. In the distance, I heard, “Seth, it’s Damon and Pinki calling from St. Lucia!” I had not spoken to Damon Di Giorgio in forever but have been observing his progress on the beautiful Point Hardy GC, which was just featured on the cover of *Golf Magazine*. His excitement for everything — the course, catching up, asking me about my Italy trip — was palpable, even on the shaky phone connection. How did Damon know his name came up just the other day while we sat around the Solo Stove?

2023 will be a year to be remembered. Consider the number of people who enjoyed the results of your hard work this year. Take a minute and scroll through your photos on your phone. Soak in all that you saw and all that you accomplished. (Have you ever seen Starlink in the sky? It’s uncanny.)

I don’t know if the year felt long or short to you, but one thing I think we can agree on is that 2023 was a success. **G**

Email Jones at:
sjones@northcoastmedia.net.

WEEDS... GET THEM BEFORE THEY GROW!



NOW AVAILABLE PRODOXABEN Herbicide

**Broad spectrum weed control for established
turfgrasses, lawns, and landscape ornamentals**

- Applied year round
- Stops weeds at germination - before they grow
- Controls over 150 weeds



For more information, visit
quali-pro.com

Contact your local distributor or CSI representative for more information. This product may not be registered in all states, please check the CSI website or the state's department of agriculture for registration information.

Starter

NEWS, NOTES AND QUOTES



//RETURN TO THE CLUB



The Country Club in Brookline, Mass., will tie Merion Golf Club as the most frequent host of USGA Championships with the 2024 U.S. Women's Open.

USGA AWARDS FOUR CHAMPIONSHIPS TO THE COUNTRY CLUB



The United States Golf Association (USGA) announced The Country Club in Brookline, Mass.,

will host four upcoming USGA championships: the 2030 U.S. Girls' Junior, 2034 U.S. Amateur, 2038 U.S. Open and 2045 U.S. Women's Open.

The Country Club has previously hosted 17 USGA championships, second-most among venues to Merion Golf Club in Ardmore, Pa., with 18. The U.S. Women's Open in 2024 is the first time the club has hosted the women's major championship. The club recently hosted the U.S. Open in 2022. At the conclusion of the 2022 U.S. Open, the USGA recognized Director of Grounds Dave Johnson and his crew with the

first E.J. Marshall Platter.

Founded in 1882, The Country Club is one of five founding member clubs of the USGA. The course started as a horse racetrack. The original team installed 18 holes in 1899 with an additional nine holes added in 1927. Rees Jones completed updates in preparation for the 1988 U.S. Open. Gil Hanse led a restoration in 2019.

Today, the club has three nine-hole courses — the Clyde, the Squirrel and the Primrose — with the Clyde and Squirrel nines making up the main course. The 2022 U.S. Open used the 'Open Course,' a composite course that consisted of 15 holes from the Clyde and Squirrel courses and three holes from the Primrose.

//RENOVATION REVOLUTION

NEW PUBLICATION HIGHLIGHTS SUSTAINABLE RENOVATIONS

GEO Foundation for Sustainable Golf recently released *Sustainable Golf Renovations Guidelines*, a new publication that includes inspiration, support and the latest examples of course improvements.

The publication aims at courses and clubs at the start of their project journey trying to improve efficiency, reduce operating costs, enhance their environments, minimize the club's impact and better connect to the community.

The publication includes a range of case studies, such as Mesa (Ariz.) Country Club, which reduced water demand by changing turf type, *Golf It!* in Glasgow, Scotland, which transformed from an 18-hole course to 9 holes and Saadiyat Beach Golf Club in Abu Dhabi, which transitioned to treated wastewater as its water source in 2020.

//ENVIRONMENTALLY CONSCIOUS

AUDUBON CELEBRATES 40 CERTIFIED COURSES

Audubon International recently honored 40 courses in the United States and abroad that attained the milestone of being certified Audubon Certified Sanctuary Program for Golf members for 10, 20 and 30 years.

"These 40 honorees for 2023 continue an important, long-standing tradition at Audubon International," said Christine Kane, CEO. "They also set a high bar for sustainability practices and stewardship culture that all our members strive to clear the moment they take on the ACSP challenge."

Two American courses reached the 30-year mark in 2023, including the Resort in Lahaina, Hawaii, and Village Links of Glen Ellyn (Ill.).

Twenty-one American courses reached the 20-year milestone, including four in California, three in Florida, two in Massachusetts and North Carolina and one in Colorado, Iowa, Illinois, Maryland, Michigan, New York, South Carolina, Virginia and Wyoming.

//WILDCAT VICTORY

Kansas State student earns 2023 Powell Scholarship



The Golf Course Superintendents Association of America (GCSAA) awarded Olayemi

Ojeokun, a graduate student at Kansas State University in Manhattan, the 2023 Larry Powell Scholarship.

Established in 2022, the scholarship focuses on individuals from underserved populations who are GCSAA members or interested in becoming a member.

"I am so excited to be the recipient of the Larry Powell Scholarship," Ojeokun said. "It holds immense significance to me as it signifies the belief and investment in my potential as an African and as a woman in turf. I hope someday there will be more black women in the turf and golf industry."



Olayemi Ojeokun

Ojeokun holds a bachelor's degree in agronomy from Osun State University in Nigeria and is on track to receive her master's degree in horticulture science in 2024. In her home country, she served as a member of the National Youth Service Corps while also holding positions of welfare officer, student laboratory assistant and graduate research assistant at the International Institute of Tropical Agriculture (IITA).

From Sept. to Dec. 2022, Ojeokun was a golf course intern at IITA. From May 2021 to Jan. 2023, she completed an internship as a coordinator at The Waste Museum in Moniya, Nigeria, while also becoming a founding board member of the Pan African Research Group (PARG). She is still involved in PARG's Food and Agricultural Technology Unit, as a researcher, deputy department head and lead publicist.

X #TurfTweetoftheMonth

Follow us @Golfdom

Robert Searle

@Searle_Turf

Superintendent,
Abenakee Club,
Biddeford, Maine

Sometimes you're having a bad day, and a member drops by and turns it around for you. Grateful to work for some awesome folks.



Presented in partnership with:



Ask Thad

BY THAD THOMPSON

Superintendent
Terry Hills GC, Batavia, N.Y.



How has the industry changed since the pandemic?

—The Golfdom Staff.

I'm in my office on a frosty, 30-degree Halloween morning. Leaves are almost done, irrigation blowout is in less than a week and I'm looking forward to some sleep on the weekends. The 2023 season flew by and was excruciatingly slow at the same time. Lita and I are in the best shape of the year and ready for winter.

It feels like, as an industry, we've taken a collective deep breath since 2020. Play exploded, budgets rose, opportunities within the industry are more plentiful and salaries are rising. It feels like a revitalization. Us old guys remember the late '80s and '90s boom. This feels similar but with more caution. I'm proud to see the industry come around and invest in golf course infrastructure, long-forgotten maintenance shops and the people — including equipment managers, assistants and superintendents.

That being said, some of the funniest content on social media is when a club posts an opening with pages of qualifications, duties and expectations, has recently renovated the clubhouse, purchased a new fleet of golf cars with GPS and created a new farm-to-table menu only to offer a salary from 1999.

With more play comes fewer daylight hours for maintenance. There's a definite trade-off in what we can do when we have 100 tournaments a year and 250 rounds on our open days. We may not see an immediate impact on the turf but what will we see a few years down the road?

I've never seen as much intentional damage to courses as I have this season. Screwing around with golf cars, destroying accessories and taking divots all over greens for attention on social media. Maybe this has always happened but now it's so well publicized. One reason I'm so active online about my profession is that I want golfers to know there's a real person taking care of the course.

Got a question for Thad? Tweet to @TerryHillsMaint and @Golfdom or email Thad at thadthompson@terryhills.com

A new (old)

BY SETH JONES

When Troy Flanagan arrived in San Francisco in 2014 to take the helm as the director of golf maintenance of The Olympic Club, he figured the club's courses were pretty much set. After all, the Lake Course had recently hosted a successful U.S. Open, won by Webb Simpson in 2012.

Continued on page 12

PHOTO USED WITH THE PERMISSION OF THE OLYMPIC CLUB

Architect Gil Hanse returns The Olympic Club's Lake Course to its original glory

look





Take good care of your babies.

Put DryJect® to work for you.



HOW DRYJECT SERVICE WORKS

DryJect applies dry or wet sand, or your amendment choice.

We come early with three or four machines. You provide crew for each machine to help keep the amendments flowing.

Before you know it the job is done. We're gone. And you're ready for play with few if any lost or discounted rounds.

DryJect can help take your greens to the next level. It's so affordable compared to traditional core aeration and can boost revenue because there are few if any lost or discounted rounds with DryJect.

The agronomics are proven. Thousands of superintendents rely on DryJect to help them keep their babies looking good and playing great.

Just think. When the DryJect crew leaves, your greens are ready for play right away. And that's a beautiful thing.

Find your local DryJect Service Center today. Call, visit our website or social media.



Aerate and Amend in Just One Pass



Search
DryJect



Search
DryJect



DryJect
Technologies

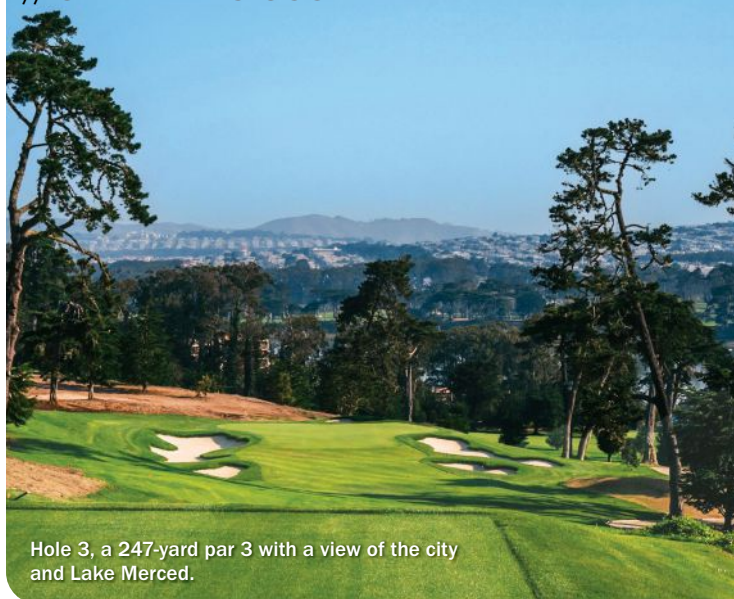


@DryJect

800-270-8873

DryJect.com

// SAN FRANCISCO TREAT



Hole 3, a 247-yard par 3 with a view of the city and Lake Merced.

Continued from page 10

But, a few years later, a discussion started at the club that the time might be right to do some freshening up of the old courses. At first, it centered around the club's practice facilities and the Ocean Course, the sandy, occasionally unstable 18-hole companion to the Lake Course.

Then, the club took a long look in the mirror: the 2028 PGA Championship, the 2030 U.S. Women's Amateur and the 2033 Ryder Cup were all scheduled to be played at The Olympic — all on the Lake Course (the 2025 U.S. Amateur will be played on both the Lake Course and the Ocean Course.)

To do the job on the Lake Course, Olympic called in Hanse Golf Design and its leader, Gil Hanse.

"We knew an awful lot about how great the Lake Course was, and the (early) conversation really centered around the practice facilities and the Ocean Course changes," Hanse recalls. "But also, the process was very clearly defined that we have major championships coming here, and a very clear window of when this work can get done."

"I think in the end, it was by far the best decision," Flanagan says of re-centering the focus on the Lake Course. "I wasn't really sure how much change the Lake Course would need to go through. But when you listen to Gil talk about what this course used to be in the '20s, '30s, '40s and where it had gone to, the light bulb really did go off. All of a sudden, you could see the vision, even before he did it."

Fun for members, a challenge for pros

The architectural history of the Lake Course, in Hanse's own words, is "convoluted." William Watson originally designed the course in 1924, then in 1927 Superintendent Sam Whiting, completed a redesign after the property incurred significant storm damage. The course saw another significant redesign from Robert Trent Jones Sr. in anticipation of the 1955 U.S. Open.

Over the next 50 years, greens shrunk, trees grew, views of the city disappeared, fairways narrowed and bunkers were removed.

Continued on page 14

USE OF PHOTOGRAPH WITH THE PERMISSION OF THE OLYMPIC CLUB

You can't help them win skins
but you can help them clean up.



See our ever-growing line of tools and accessories to enhance
your course including Accuform™, HiO®, FusionCast® and Miltona.



ParAide.com

© 2022 Par Aide Products Co.

Continued from page 12

"Since the '50s, you could say the course lost its way from its original design," Flanagan says. "Gil helped us see that this course used to be way different. The greens used to be bigger, the greens used to be the high point and everything fed off the greens, down the hills, the bunkers and everything. He helped bring that philosophy back."

Hanse not only wanted to take the course back to its original look but also make it challenging for the highest-level golfers, and still playable for members.

"You'll notice wider fairways, particularly in the driving zones where members hit it. Greens became pinched off, (but now) members can run balls onto the greens," Hanse says. "The combination of these things ... we hopefully have created a course where members get excited about playing it, and we still feel very confident that when the best players in the world

show up, they'll also have a challenge."

A steep learning curve

In November of 2022, Hanse and his team began expanding greens, while Total Turf started moving dirt. Olympic also brought in Heritage Links for the irrigation installation. Flanagan and his team were involved throughout, monitoring the greens as they grew 35 percent in size.

"I've got eight managers who all have turf degrees, so they all helped out however we needed them on the project," Flanagan says. "(The greens) were all lasered before and then put back the same way, and they all got to experience this."

For Lake Course superintendent Kyle Moore, a native of Kansas City, the experience was "a once-in-a-lifetime opportunity," and a major learning experience.

"The early stages were toughest because of the learning curve," he says. "It took me

a minute to see how fast construction moves. Those guys just fly, and keeping up with them was the hardest part. But it was cool to see the step-by-step process. I've been on this course for six years, starting at the same greens complexes ... and then watching them move soil around in the same area, not even necessarily bringing in more material ... and they're able to change the look and the feel of the greens complex. It was pretty cool."

One thing that was not cool was the weather that winter — Flanagan calls it "the worst winter you could imagine." Heavy rains washed away a lot of work and took out nearly 200 trees.

"We were getting ungodly amounts of rain and losing a bunch of trees, and those days were pretty crazy," Moore says. "You're out here and getting five inches of rain in the day and trying to salvage all the work

Continued on page 16



 plantfoodco.com

 [@plantfoodco](https://twitter.com/plantfoodco)

 [@plantfoodco](https://www.instagram.com/plantfoodco)

Experience The Difference!

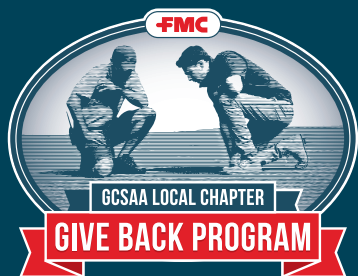
"Leading up to the MET Open weather wasn't on our side. TDR readings during the tournament said the turf needed water but because we had been applying Plant Food's muscle spray, with Sili-K, the turf looked healthy enough to rebound quickly from all of the wear. To our surprise, the greens stayed right where they were, looking and playing great during and after the tournament."

Paul Dotti
Superintendent
Arcola Country Club, NJ



Check Out Our Muscle Spray





OVER \$200,000 BACK TO LOCAL GCSAA CHAPTERS

Since the Give Back Program's inception in 2020, FMC has donated over \$200,000 directly back to local GCSAA chapters to support the growth of the golf industry. Local chapters have invested the Give Back funds from FMC in member education, scholarships, and promoting the benefits of the golf industry.



Glenn McWhirter
President

Alabama Golf Course
Superintendents Association



GraceMarie Chapin
Executive Director

Connecticut Association
of Golf Course Superintendents



Chris Steigelman
President

Georgia Golf Course
Superintendents Association



Tony Nash
President

Central Texas Golf Course
Superintendents Association



Shannon Phillips
Chapter Executive

North Texas Golf Course
Superintendents Association



Tim Kreger
Executive Director

Carolinas Golf Course
Superintendents Association



FMC Innovations You Can Trust.
People You Can Count On.
Learn more about the FMC Give Back
Program by scanning the QR code.
gss.fmc.com

Visit **Booth #4012**
at the **2024 GCSAA Trade Show** to
earn money for your local chapter.

// SAN FRANCISCO TREAT

Continued from page 14

that had been done and the days weren't fun. I think those are probably the days where I'll be like, 'Man, that was crazy.'"

Still, the most memorable part for Moore was watching Gil Hanse achieve a new vision for the course.

"When he's out here, it's really cool just watching him. He will tell you what he's planning on doing, and then a couple hours later you look at it and it's exactly what he said," Moore says. "He's just got the eye for it. He would just give it one shot. And that's pretty much all we needed each time."

A true partnership

While it may look easy to the outsider, Hanse says it's not always easy from his perspective. He recalls his work on No. 7, where, unlike other areas of the course, he created a new hole. A short par four, Hanse changed the orientation from a straight-forward tee shot, to a tee at 7 o'clock and a green at 1 o'clock, with a bunker making for a fun risk/reward hole.

During the work on No. 7, Hanse's sand pro wasn't working well, causing him to become flustered. He got off the machine to take a step back and look at his work when Flanagan approached him. He asked Flanagan, 'What do you think?'

"Troy said, 'It's amazing — it looks like you didn't even try.'" Hanse laughs. "He said, 'No, no, no ... like you didn't try too hard to make something different that



The renovation of the Lake Course began November 2022 and was complete by September 2023, despite difficult weather.

doesn't fit in at Olympic.' I said, 'Thanks.' Now I tell people, the highest compliment that I'll ever get is 'it looks like I didn't try.'"

Hanse heaps praise upon the crew at Olympic and calls his work with them "a true partnership in every way."

"(Flanagan's) team, Kyle (Moore) and Jared (Kief) and all the guys in the maintenance team there have been phenomenal to work with," Hanse says. "You get to work with some of the best superintendents in the world when you get to work at clubs like Olympic. You get to learn and pull stuff out of their brains, as to what they know about the golf course and the inside information that comes with that. I like to tap into that knowledge ... the crew has a tremendous amount of talent."

As for the results, the course has time



to fill in before the 2025 U.S. Amateur arrives. But more immediately, at the grand reopening in October, Club President Jim Murphy says membership was thrilled with the results.

"Once the project started and we saw Gil's plans, there was a great degree of anticipation," he says. "The feedback from members, I would characterize as a great deal of jubilation. This is a fantastic course. It will only get better as it matures." **G**

USE OF PHOTOGRAPH WITH THE PERMISSION OF THE OLYMPIC CLUB

Superintendents describe it as reliable, proven, trusted, consistent and dependable



Pete Wendt

“Segway is a trusted partner through the summer months, keeping all of our cool season surfaces in great shape.”

Pete Wendt, CGCS

Director of Golf Course and Grounds at Congressional CC



pbi/gordon
CORPORATION

Employee-Owned

For more information on Segway®: **PBIGordonTurf.com/Segway**

Always read and follow label directions. Segway® is a registered trademark of Ishihara Sangyo Kaisha, Ltd. 10/17 04797

POWER. CONSISTENCY. PERFORMANCE.

IF ONLY THAT DESCRIBED YOUR GOLF GAME.



GOLF'S BEST ROTOR 10 YEARS RUNNING

Get maximum uniformity and longevity in the field with proven TTS-800 Series Golf Rotors. Featuring a powerful, high-torque gear drive for harsh water conditions and Total-Top-Serviceability for easy, no-dig maintenance, these reliable rotors make irrigation management simple, round after round.

Exclusive PressurePort™ Nozzle Technology optimizes incoming pressures to maximize distribution uniformity for greener, healthier turf



hunter.info/TTS800

Hunter®

SECOND ANNUAL *Supers'* AWARDS *Choice* 2023

We're back for year two! We asked our readers for their favorite products of the year, and their favorite products of all time ... and these 34 products were what they told us.

Some of these products are their favorites from this year, tools to get supers through the busy season. Others are their all-time favorite products, tools they have relied on throughout their career that have stood the test of time.

What products should have been included that were not? You tell us — send an email to *Golfdom* Editor-in-Chief Seth Jones at sjones@northcoastmedia.net — and tell us what tools need to be included in 2024!



▲ Green Activator STANDARD GOLF

"I run five golf courses, and the fairways have looked amazing. I put it on about three to four times a year and see immediate results. With this, you don't get an immediate surge of growth, it's consistent. I started doing it on my tees and greens last year and now that's all I use; it provides a nice color and it doesn't give you that surge of growth."

— **Scott Rohlfson,**
Superintendent,
Jesup (Iowa) G&CC

OIL-YS ▶ ORGANISAN CORP.

"Improves the health of turf utilizing yucca plant extract and chitosan. It helps us build healthy root zone biology and protects plants from stress. It is a natural wetting agent too. It works well against nematodes, as I haven't lost any turf to them since I incorporated this product into my program."

— **Eddie Wachter, CGCS, Superintendent,**
Franklin County CC, Washington, Mo.



Shockwave ▼ IMANTS

"The flexibility to utilize this product throughout the season, on a variety of surfaces, to a variety of depths, with little to no impact on playability makes it great. That coupled with maximum decompaction is an absolute home run, especially in heavily compacted cart traffic wear areas."

— **Ross Miller, CGCS, Superintendent,**
Country Club of Detroit





Suprado QUALI-PRO

"It's virtually a magic bullet for annual bluegrass weevil. This one application in the spring has saved agronomy programs hundreds of dollars per acre when using other programs in the past. The timing is incredibly flexible, and the resistance concern is nonexistent."

— **Chris Navin, Superintendent,**
The Club at P.B. Dye, Ijamsville, Md.

Maxtima ▶ BASF

"It's the best dollar spot product I've ever seen. I've been using it since it came out, we can use it and if the pressure gets to be too much, it has a knockdown power."

— **Steve Schultz, Superintendent,**
Lincoln GC, Muskegon, Mich.



Field Scout TDR300 ▼ SPECTRUM TECHNOLOGIES

"I wouldn't really know how to do my job without my TDR moisture meter. I think that tool revolutionized everything for everybody. I'd say that's my number one. You can get away with a litany of agronomic sins, as long as your moisture management is where it should be."

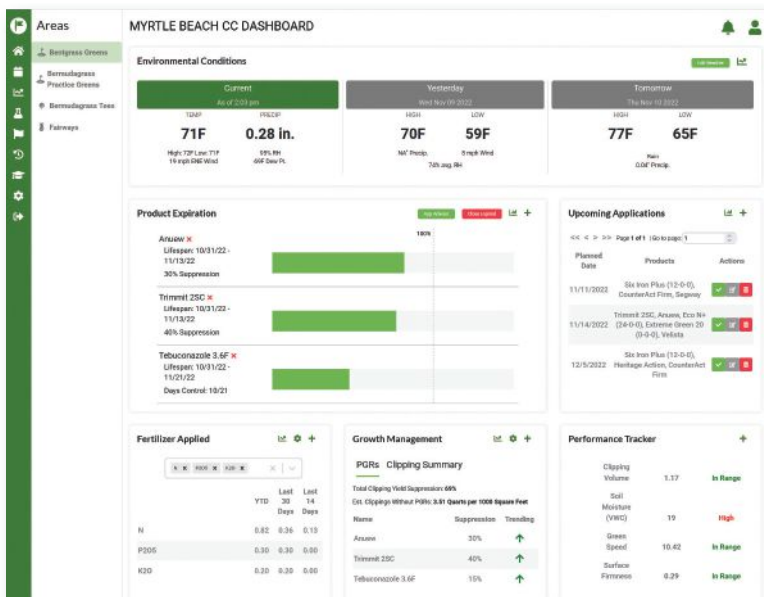
— **Curtis Schriever, Greenkeeper,**
Wichita (Kan.) CC



◀ SIP 7000 SIP GRINDERS

"This is a revolutionary reel grinder, when paired with the SIP bedknife grinder it's unparalleled in our industry. No back lapping anymore, reel and bedknife fit perfectly every time and it's all based on geometry figured out by smarter people than me."

— **Thad Thompson, Superintendent,**
Terry Hills GC, Batavia, N.Y.



★ ★ ★
All-Time Favorite

GreenKeeper App TURFGRADE

The GKA Course Information System is a game-changer. Having the ability to create Rx applications with a few clicks and loading the application into the GPS Sprayer Control Console is a real time saver and provides next-level control of product applications."

— **Eric Johnson, Director of Agronomy,**
Pierce CC, University Place, Wash.

Nimitz Pro G QUALI-PRO

"Nimitz Pro G coming back for nematode suppression has been huge. It's like having a new chemistry for us. We started seeing some resistance to some of the other products that have been used so much here. So this has been a big help and we've seen some big improvement just in the last few months from getting this product out."

— **Glenn McWhirter, Superintendent,**
Lagoon Park GC, Montgomery, Ala.

PeneCal REDOX BIO-NUTRIENTS

"To me, it is the best product, and it isn't expensive. It's a calcium product that almost acts like a penetrant wetting agent. My joke with our Redox representative is that if you're not spraying PeneCal, you're missing the boat."

— **David Beanblossom, Superintendent,**
Chariot Run GC, Laconia, Ind.



Spot Over-Seeder-Spiker PAR AIDE

"You push it down in the ground, it releases bentgrass seed. We use that a lot for greens to really get them to fill in seed and bad spots. It's a phenomenal tool for us."

— **Troy Flanagan, Director of Golf Maintenance,**
Olympic Club, San Francisco



Continued on page 22

VISIT US AT BOOTH #4146

STEC
EQUIPMENT

WWW.STECEQUIPMENT.COM



GCSAA
Conference and Trade Show

Jan 29 - Feb 1, 2024
PHOENIX, AZ

Continued from page 20



★ ★ ★
All-Time
Favorite

ProCore 648 TORO

"It's very hard to beat or top this tried-and-true cultural practice icon for its capabilities, flexibility in setup, efficiency and operator-friendly setup. This product has run for 20-plus years and it's still going strong, with no rival."

— **Ross Miller, CGCS,**
Superintendent,
Country Club of Detroit



▲ Anuew PGR NUFARM

"It helps produce a better product for us in the summer. Now I can start regulating my ryegrass in the spring and early summer to help regulate and tilt the scale on my bermudagrass. It's probably, in the last, I would say, five years, that product right there has been a game changer for me here in Arizona."

— **Ernie Pock, Director of Agronomy,**
Grayhawk Club, Scottsdale, Ariz.

Posterity ▼ SYNGENTA

"Ever since I started using Posterity, it seems to help our turf recover better from dollar spot. I just don't have it as much with the longer window that Posterity gives. It has helped us out a lot."

— **Maron Towse, Superintendent,**
Schifferdecker GC, Joplin, Mo.



PoaCure ▶
MOGHU USA

"Over the course of two seasons of applications, we have effectively removed *Poa* from 30-plus-year-old PennLink USGA spec greens. Our greens are as good as new."

— **Chris Thuer, CGCS,**
Superintendent,
Bear Slide GC, Cicero, Ind.



▲ Nemasen
ORGANISAN CORP.

"It's a natural nematocide with chitosan and quillaja. These two ingredients help build healthy root zone biology. It's also a great help with nematodes, as alongside Oll-YS, we have not lost any turf from Nematodes since we started to use it."

— **Eddie Wachter, CGCS, Superintendent,**
Franklin County CC, Washington, Mo.

There's only one Segway®.



G pbi / GORDON
CORPORATION
Employee-Owned

PBIGordonTurf.com/Segway

Always read and follow label directions.
Segway® is a registered trademark of Ishihara Sangyo Kaisha Ltd. 11/23 672902

Koro Field Top Maker ▼ IMANTS

"It's basically like sod cutting a fairway, which allows that (bermuda) to grow back in. It not only removes the thatch and all the other organic that's built up over the year, but it also removes all the Poa seed bank in the soil, so we don't have to worry about that in our fairways."

— **Greg Niendorf, Superintendent,**
Shadow Creek, Las Vegas



Gas leak detector ▼ FORENSICS

"I still have the original irrigation system and it is hydraulic. Hydraulic is a nightmare. There are little, tiny tubes that go to all 1,000 sprinkler heads. If they get a little pinhole leak, the head comes on, but won't go off. When that happens, we use a combustible gas leak detector. We put propane through the tube and then we walk around and sniff for propane. Without that, I'd be in trouble."

— **Mike Bellino, Superintendent,**
Heathrow CC, Lake Mary, Fla.



Tempo wire toner TEMPO COMMUNICATIONS

"We've done a lot of construction on this golf course. We built Edgewood Lodge seven years ago, we're now building the Edgewood Villas. We've realigned a couple of holes for that project. So, there's been a lot of disruption with our irrigation system, so I've been using a tempo wire toner, trying to get all our wiring back to normal, and figuring out which wires go where. It's been a great tool."

— **Brad Wunderlich, CGCS,**
Director of Grounds
and Agronomy,
Edgewood Lake Tahoe GC,
Stateline, Nev.



Excalibur ▼ AQUA-AID

"Our tees are 85-percent sand. I've tried everything, but the hot spots on them have always been out of control. With Excalibur, it's made them the best they've ever been. It helps them keep moisture uniformly, but not too wet. Now I'm using it on my greens as well."

— **Greg D'Antonio,**
Golf Course Superintendent,
Concord CC, West Chester, Pa.





▲ Master key

"Right now, my favorite tool is my master key to the clubhouse to pick Poa from the greens. It's getting worn down. I plug it in and pop the seedhead right out."

— **Matt Dachowski, Superintendent,**
Lake Merced GC, San Francisco

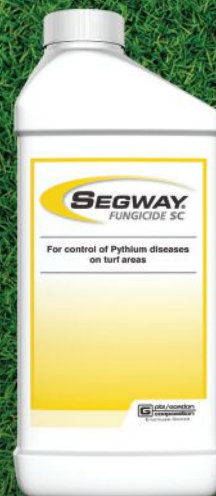


◀ Ascernity SYNGENTA

"I've had some problems with anthracnose breaking through on my fairways and this has been working really well. It's something our Syngenta rep recommended, and it's helped much more than what we were spraying before."

— **Steve Schultz,**
Superintendent,
Lincoln GC, Muskegon, Mich.

Superintendents Agree: Segway® Fungicide SC is reliable, proven, and trusted.



*"Segway is a trusted partner
through the summer months,
keeping all of our cool season
surfaces in great shape."*



— **Pete Wendt, CGCS**
Director of Golf Course
and Grounds,
Congressional CC

G pbi / Gordon
corporation
Employee-Owned

PBIGordonTurf.com/Segway

Always read and follow label directions.
Segway® is a registered trademark of Ishihara Sangyo Kaisha Ltd. 11/23 672902

Supers' AWARDS Choice

All-Time
Favorite

Truckster CUSHMAN

"It's the best piece of golf course equipment ever made. Back in the '80s, I learned how to drive a stick shift on a Truckster. It's built to last and helps get us everywhere we need to go."

— **Steve Wantz,**
Spring Ford CC, Royersford, Pa.



TurfTrainer TURFTRAINER

"We started to use those three years ago as opposed to brushes and it's really helped the texture of our putting surfaces. We have it on the triplex and on walkers. It does a nice job getting the grain out and it's easier to use than brushes."

— **Paul Hoarston,**
Superintendent,
Ryland Lakes CC,
Ryland Heights, Ky.



▲ Serata FMC

"It extends your Pythium root rot control. People told me about it last year, that you can get longer control when you use it. I plugged it in every three weeks, and we stayed really clean all season."

— **Sean Berger,**
Superintendent,
The Club at Porto Cima,
Sunrise Beach, Mo.



◀ PrimoMaxx SYNGENTA

"From a chemistry standpoint, I think growth regulators, such as Primo, are starting to become even more stable, not that they already haven't been for us the last 15 years. It helps address some of the labor shortages. We can help control the growth, which reduces the amount of mowing that we must do to keep good quality conditions."

— **Chuck J. Connolly,**
Superintendent,
Savannah Lakes Village, Greenville, S.C.

Celero ▶
NUFARM

"Celero is a magic bullet when it comes to Kyllinga in any turf."

— **Chris Navin,**
Superintendent,
The Club at P.B. Dye,
Ijamsville, Md.



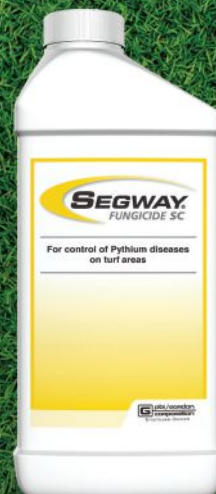
Rebar Multitool ▼
LEATHERMAN

"It's a toolbox in your pocket. It has wire cutters, pliers, screwdrivers; everything you need to work on sprinkler heads without lugging along a giant toolbox. Plus it's got a multitude of other uses with its knives, files, rulers and a bottle and can opener."

— **Steve Wantz,**
Spring Ford CC, Royersford, Pa.



**Superintendents Agree:
Segway® Fungicide SC
is reliable, proven,
and trusted.**



*"With Segway, we really
have a go-to product that's
going to allow us to
sleep at night."*



— **Paul Dotti**
Superintendent,
Arcola Country Club,
Paramus, NJ

G pbi / Gordon
corporation
Employee-Owned

PBIGordonTurf.com/Segway

Always read and follow label directions.
Segway® is a registered trademark of Ishihara Sangyo Kaisha Ltd. 11/23 672902



Ninja GPS Sprayer

FROST

"It's very user-friendly, especially now that they married the system with the GreenKeeper app, which I was already using. I've been beta-testing the new system, you can now create your own prescription maps ... and it's plug-and-play from there, it's awesome."

— **Bill Irving, Superintendent,**
Wolf Creek GL, Olathe, Kan.



Turf Fuel Infinite ▶

TARGET SPECIALTY PRODUCTS

"I mostly run Target Specialty Products. I have been very impressed with their (Turf Fuel) Infinite wetting agent. That stuff is good. There is no denying that."

— **Matthew Fiorentino, Superintendent,**
Profile Club, Bethlehem, N.H.



▲ Kalida and Fame

FMC

"Last year we had a fairy ring problem at the club on our greens, and with the help of Kalida and Fame, we haven't had any issues. It's been eliminated on the property through the use of the products and watering the products in properly."

— **Shawn Westacott,**
Director of Agronomy,
Blessings GC, Fayetteville, Ark.

Greensaire 24 ▼

RYAN TURF

"We've been using Greensaire since the '70s. It's the best aerifier ever made. It helps relieve compaction and provides air to our soil and roots. Air is the cheapest thing you can give to your turf."

— **Steve Wantz,**
Spring Ford CC, Royersford, Pa.



Continued on page 30

COMPROMISED

NOT WHEN IT COMES
TO PYTHIUM.



There's only one Segway®.



Learn more at PBIgordonTurf.com/Segway

Always read and follow label directions. Segway® is a registered trademark of Ishihara Sangyo Kaisha Ltd. 06288-3/22

Continued from page 28



▲ Professional Greens Mower HUDSON STAR

"The Hudson Star mowers for some of the slopes around bunkering. There's no motor, they're just kind of an old-school reel mower. You can adjust them down to greens height, which is pretty amazing, the engineering on that. I'm excited to play around with some of the hillside slopes that we haven't been able to cut short previously."

— **Kyle Harrigan, North Course superintendent,**
Silverado Resort, Napa, Calif.

Cell phone ►

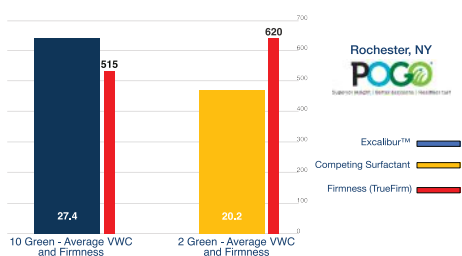
"You can't check your POGO without it. I can assemble my staff with it. I can order products from my cell phone. I can phone a friend when I'm in trouble. I could ask a superintendent down the road for something. We basically have a minicomputer in our hand, available at all times."

— **Marc Muniz,**
Director of Agronomy,
The Club at Lansdowne (Va.)

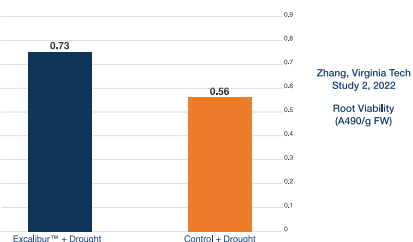


SCANRAIL / ISTOCK-GETTY IMAGES PLUS / GETTY IMAGES

Volumetric Water Content and Surface Firmness



Under simulated heat and drought stress, Excalibur increased root viability by **29.6%** over the drought stress control



Excalibur™

PHOTOTECHNOLOGY

Poa annua
push-up greens
Rochester, NY

10 years of trying different surfactants.

Excalibur checks all the boxes infiltration, percolation, with just enough retention, yet achieving unparalleled surface firmness.

Matt Delly
Monroe Golf Club



AQUA-AID
SOLUTIONS



Solutions4Turf



Aqua Aid Solutions



Solutions4Turf

Frost Inc

Spray Technology Products



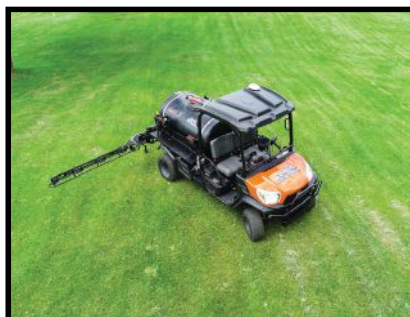
KUBOTA RTV-X1140 +
NINJA GPS SPRAY CONTROL

UNMATCHED PERFORMANCE in Spray Technology.

Frost Inc. sprayers are all about accuracy, productivity, reliability, and comfort!
Accuracy with Ninja GPS spray control. **Productivity** with a faster spray speeds.
Legendary Kubota **Reliability**. And the **Comfort** of independent suspension.



(800) 621-7910



@FrostSprayTech



info@frostserv.com

At the Turn with...

Parker L. Ferren, CGCS

DIRECTOR OF GOLF COURSE AND GROUNDS MAINTENANCE // Copperleaf GC, Estero, Fla.

After 18 holes of golf, or 9, in this case... what are you drinking? Diet Coke.

Need to recaffeinate before going home to the fam!



Tell me about your family. I've been married to my wife Amber for 10 years. We have two beautiful daughters — Emily and Mackenzie — and a Golden Retriever named Sonny.

What should I know about Copperleaf? Copperleaf was designed by Gordon Lewis and built about 25 years ago in Bonita Springs — halfway between Naples and Fort Myers in Southwest Florida. Copperleaf maintains its designation as a Certified Audubon Cooperative Sanctuary with an operational emphasis on environmental sustainability. We have a beautiful golf course and a great membership.

How did you get into the business?

I grew up playing competitive golf and have been in love with the game since my early childhood. I've always wanted to do something in the golf business and was fortunate to have had some great opportunities and mentors who pointed me in the right direction.

BROUGHT TO YOU BY



// BEST ADVICE

"MAKE TIME FOR FAMILY. I TRY TO PRACTICE WORK-LIFE HARMONY OVER WORK-LIFE BALANCE."



What is your favorite tool to get the job done? My computer(s). I'm a bit of a nerd, but spreadsheets are my greatest tool to stay organized.

What sports teams do you root for? What is your all-time favorite sports moment? The Florida Gators and the Atlanta Braves! Winning the World Series in 2021 was a good one.

Aside from visiting your course, if I were in your area, what is one thing I would have to do? Hertz Arena is only 10 minutes away and there are always good sporting events or concerts going on. The Florida Everblades (ECHL) also plays there. Minor league hockey is affordable and a blast to watch. They are actually back-to-back ECHL champs.



Who would be in your dream foursome? Tiger Woods, Rory McIlroy and my dad. Tiger and Rory have both elevated the game in so many ways. And gotta have Pops in there too!

Fill in the blank: I expect the 2024 golf season to be _____. Busy. It is no secret the game of golf continues to grow and evolve. We put out over 50,000 rounds of golf each year at Copperleaf. Somehow, that number keeps growing. New courses are being built, new faces are playing the game and the industry is back on the rise.

As interviewed by Seth Jones, November 7, 2023.



**EROSION RESISTANT
MAINTENANCE FREE
EASY TO INSTALL
DUSTLESS**

Natural Crushed Stone Wax Polymer Pathway Material

Cut down on maintenance while preserving a natural look and feel with Kafka's patented Wax Polymer Pathway Mix. The ease of installation and limited maintenance makes our Wax Polymer Pathway Mix a top choice for beautiful, yet resilient, pathways on courses throughout the United States.

Natural Stone. Groundbreaking Solutions.

LET US PROVE IT.

Mention this ad for a **FREE** trial of our Wax Polymer Pathway Mix.

kafkagranite.com/golf
800-852-7415

PERFECTING
the Art of
WEED CONTROL

THERE'S SIMPLY
NO OTHER HERBICIDE
LIKE SUBLIME.



It's a selective post-emergent with a unique combination of three powerful non-phenoxy actives that provides a significantly broader spectrum of control on broadleaf and grassy weeds – no other herbicide comes close. Scan the QR code to learn more about Sublime.



Albaugh Specialty Products • 1525 NE 36th Street, Ankeny, IA 50021 • www.albaughspecialty.com

©2023 Albaugh, LLC. All rights reserved. Albaugh and the A logo are registered trademarks and Sublime is a trademark of Albaugh, LLC.

Always read and follow label restrictions, precautions and directions for use.

SINCE 1927—The Resource for Superintendents // Golfdom.com

Golfdom

NOVEMBER/DECEMBER 2023

2023 | STATE OF THE INDUSTRY

A recap of the year from GCSAA chapter presidents across the U.S.

PHOTO USED WITH THE PERMISSION OF THE OLYMPIC CLUB

PRISTINE GREENS

You'll find Smithco greensrollers featured on some of the most elite courses across the globe. Over our 30 year history, we've produced top-of-the-line rollers, culminating in our line-up of four cutting-edge models. Featured here, the Tournament XL-7000 Ultra Wide boasts a hydraulic direct cylinder drive, offering superior traction and slashing maintenance costs associated with competing chain-driven machines. With the strength to handle the toughest greens, the XL 7000 features a 16HP Vanguard Twin engine and offers power steering for ease of use. For more information on Smithco's Tournament Ultra product line, check out smithco.com.

***Get faster, smoother, pristine greens
with a Smithco Greensroller.***

○ BETTER TRACTION

Equipped with triple hydraulic direct drive to rollers for better traction, you get more work done in less time.

○ TOURNAMENT-READY GREENS

Adding greensrollers to your course maintenance routine keeps greens at peak playing condition.

○ EASY MAINTENANCE

No more time-consuming chain maintenance.

TOURNAMENT XL 7000



LEARN MORE

Smithco

WE TAKE YOUR TURF SERIOUSLY

Exceptional Service and Products Since 1967

smithco.com



“When you consider yourself a private contractor, things become much clearer. Instead of waiting for someone to take care of you, *you* should decide that *you* are going to take care of *you*.”

MATT SHAFFER, *director of golf course operations emeritus Merion Golf Club, Ardmore, Pa.*

Should I stay, or should I go?

I might not be the best person to answer this question! One of my best friends nicknamed me “The Migrant Golf Course Superintendent.” Before social media, my friends often lost track of us. For a while, we were three years and out.

Over the five decades that I was a super, the industry changed a lot. If you talk to any of us old-timers, it was a common practice to move often in order to move up. The industry was really growing and the educated superintendent was relatively new. So, there were lots of jobs to choose from.

Now, there are fewer jobs to choose from, but I personally believe that is going to change. Golf is extremely popular. Many new people were introduced to the game during COVID. The great news is many of these folks have stayed with the game, coupled with the fact that there are fewer people getting into the industry. When I graduated from Penn State, there were 34 students in my class. Dr. (Jeff) Kaminski

told me the other day he has 19 in this year's class. Any of you looking for assistants and interns know that it can be a challenging task. On top of that, there is an aging group of supers retiring. In my opinion, within the next ten years, there is going to be a shortage of superintendents.

That leads us to “Should I stay, or should I go?”

When you consider yourself a private contractor, things become much clearer. Instead of waiting for someone to take care of you, *you* should decide that *you* are going to take care of *you* and your family. You need to acquire the necessary skill sets to take this approach, but when you have them, it is time to use them.

As in all decisions, there are pros and cons.

CONS:

- Relocating children
- Selling and buying another home
- Leaving friends
- Heading into the unknown
- Starting over

PROS:


- Larger salary
- Better benefits
- More amenities for your family
- The excitement of starting over
- A better golf course
- More resources

There are others, but these are the biggies!

For me personally, as I continued to learn, I was eager to do more. My desire to do more required more. Consequently, this led to me taking bigger

and bigger jobs. For many years, I shunned tournament golf. After being Paul Latshaw Sr.'s assistant at Augusta National, I saw the tremendous stress that he was under to produce championship conditions at the highest level. In the years following my departure, I stayed in high-end private clubs with one side stop at Hershey Resort's 81 holes of golf. (This was an accidental stroke of luck for me because Hershey taught me how to think like a businessman.) But once you are in championship golf, the itch is always there. And eventually, you must scratch it. I finished in championship golf at Merion Golf Club and was fortunate to have hosted some great USGA Championships.

The bottom line is you need to know who you are. You need to have a long-term plan. You need to have a timeline, and finally, you need to initiate it!

I think the danger in our profession is when you wait for something good to happen at a job where, most likely, it will never happen. When you do this, it erodes your self-confidence. So, as I always told my protégées, *be proactive, not reactive!* 

Matt Shaffer, a longtime superintendent, is the owner of Minimalistic Agronomic Techniques (M.A.T.) He was previously the superintendent at The Country Club in Cleveland and is director of golf course operations emeritus at Merion GC, Ardmore, Pa., where he hosted the 2013 U.S. Open. Reach him at matthewgshaffer@gmail.com.

**Somewhere on this page is
the secret to perfect greens.
Can you find it?**



It's not a secret. Floxcor™ fungicide, which contains the active ingredient fluoxastrobin, has exceptional efficacy, control of a variety of turf diseases and long residual activity, plus quicker plant intake that keeps your turf pristine.



Get perfect greens

Floxcor™

FUNGICIDE



™® Trademarks of Corteva Agriscience and its affiliated companies. Floxcor™ is not for sale or use in Nassau and Suffolk counties, New York. Other state restrictions on the sale and use of Floxcor apply. Consult the label before purchase or use for full details. Always read and follow label directions.
© 2023 Corteva. CT38-246-020 (11/23) BR CAT03TURF066



HEALTHY TURF



starts here.

VGR TopChanger



GKB Sandfiller



GKB Deep Tine Aerator

(888) 325-2532

stecequipment.com

@STECEQUIP

SPECIAL SECTION TO

Golfdom

2023 | STATE OF THE INDUSTRY

Superintendents report golfers were
“beating down the door” to play in 2023

BROUGHT TO YOU BY



A NORTH COAST MEDIA PUBLICATION

THE ANSWER TO YOUR #1 PRIORITY



MAINTAIN PRISTINE
SURFACE CONDITIONS



FIND SAVINGS ON
TIME & LABOR



APPLY WITH EASIER
CONVENIENCE

Anuew EZ PLANT GROWTH REGULATOR

Whether your sights are on playability, density or color – or the pressure is on to reduce time and labor – Anuew EZ is ready to respond. It's the PGR you rely on to achieve your #1 course priority in a new, easy liquid formulation.

Available for purchase during the Nufarm Edge Rewards Program. Visit nufarm.com/usturf/anuewez to learn more.

NEXT-GENERATION PGR
Now in a liquid formulation

A WORD FROM OUR SPONSOR

Season's Greetings from all of us at Nufarm!

As your partner for growth, we hope that this State of the Industry report provides insights that help guide you through a successful 2024.



Jeff Eldridge

Throughout the year ahead, it will be essential for all of us to advocate for the golf industry. No doubt, we will experience ups and downs, from labor challenges and increased competition to rising costs and weather concerns.

However, by working together at events like National Golf Day on Capitol Hill, we can make a positive and lasting impact on this industry that means so much to us.

Nufarm will open its Morrisville, N.C., headquarters in 2024 with new, state-of-the-art formulations, chemistry and testing facilities. This location will also serve as home to our North American portfolio, commercial solutions and marketing teams. Our investment in this facility will help us bring more innovative new products to market. It's all about providing the Nufarm solutions you need to meet tomorrow's challenges head-on.

As I've met with superintendents and their crews across the country, it's been gratifying to observe the value they've found in Nufarm products like Anuew and Anuew EZ, Tourney EZ,

Traction, Celero, Change Up, Cheetah Pro and many others. I assure you that Nufarm will continue to provide not just products, but also the level of service and technical expertise you've come to expect and deserve.

Nufarm's ongoing and daily commitment to our customers is what connects every aspect of our company. We are fond of saying we've served our customers for more than 100 years. We plan to be around for at least another 100 years by nurturing a mutually beneficial relationship that helps you successfully maintain beautiful, playable golf courses, year in and year out.

Here's to a strong 2024!



Jeff Eldridge, CGCS

Golf Segment Lead for Nufarm Turf & Ornamental



Bring on winter!

After a year of golfers “beating down the door” to play, superintendents reflect on the year that was

By Seth Jones, Rob DiFranco and Brian Love

“If you ask any of the courses around here, they’d say they had a great season, a really busy golf course making a ton of revenue,” says Matt Partridge, superintendent at The CC of Rancho Bernardo and the president of the San Diego GCSA chapter. “And we can’t wait for winter when it slows down a little bit, because it’s been really busy.”

Those sentiments were echoed by most of the chapter presidents from around the country the *Golfdom* staff spoke to in early November for our annual State of the Industry Report, sponsored by Nufarm. Rounds are up, the weather was good and labor is still a challenge. But overall, it seems these presidents agree that 2023 was a banner year for the industry. To read additional reports from around the U.S., visit Golfdom.com.

Jeff Wichman

PRESIDENT, Rocky Mountain GCSA
SUPERINTENDENT, Patty Jewett GC,
Colorado Springs, Colo.

How was this year’s golf season in your region?

It was great. Golf rounds were just through the roof. They were beating down the door to play, which is a good thing.

How did the weather treat your area?

It definitely was interesting. In March we had zero spring, it was super cold and firing up the irrigation system was extremely hard. So it seemed like we went



Jeff Wichman

from winter and then once April came right to summer. Once summer hit for us, we got increased moisture in Colorado, which was very welcome.

What was the labor pool like this year?

I went from averaging 13 inches of precipitation a year to, right now, 18 inches and the year’s not even done. So that was great.

After 2020, the pandemic, I struggled. This is the first year where I’m starting to see an improvement. And what’s been saving me is some of my older retired guys, more of them started returning. So for me this year, labor wasn’t as big a deal. It was a little easier for me for the first time in probably three years.

Any notable success stories from your chapter or region this year?

Two things. The first would be our government leg. Our lobbyist, Jennifer

Castle, has been doing a lot of work up in the state regarding pesticides and pre-emption. They want to have local control and we’re just not for that. The more I get into government, it’s pretty interesting, that’s been a fun learning curve and that’s something that’s just not going to go away in our industry at all when it comes to pesticides and water and the environment. I think all chapters are really stepping their A-game up there for sure. Another one was the U.S. Amateur at Cherry Hills. That was just an outstanding tournament and fun to watch. Cherry Hills, Josh (Hester) and his staff represented the state of Colorado. It was great in all aspects of turf and just everything.

What are your expectations for 2024?

It needs to be said: government pressure is not going away. We need to stay on top of that. And for us, I just see rounds going up, I truly do. I see the younger Millennials coming out and playing more and enjoying it more. I think golf, in all, is heading in the right direction.

— S.J.

David Beanblossom

PRESIDENT, Kentuckiana GCSA
SUPERINTENDENT, Chariot Run Golf Course, Laconia, Ind.

How was this year’s golf season in your region?

Speaking for our golf course, we surpassed last year’s total revenue by the end of September. I think that golf is still on the increase here in the Indiana and Kentucky markets.



Weather was up and down in 2023 for Rocky Mountain GCSA President Jeff Wichman, with an absent spring leading to a wet summer.

How did the weather treat your area?

It has been a great year weather-wise. January and February were warmer than normal. So we got off to a good start. It has been dry for the last two months. The first week of July was the last time we had any measurable rain until last week, but we only got a small shower. The summer has been extremely hot. We had a hundred-degree-plus temperatures. Also, the spring was a little warmer



David Beanblossom

than what we average.

What was the labor pool like this year?

I think the labor pool has been up a little bit this year. We had people walk into the office that we had to turn down. In the past, we had been hiring every warm body that walked through the door. Fortunately, this year has been a little easier to find help.

Any notable success stories for your chapter or region this year?

We hold a fundraiser golf tournament every year for our chapter. This year was a record year for us with the funds we

raised. We do legacy scholarships with the money that we raise. It was great to have a fundraiser to keep those platforms in place.

What are your expectations for 2024?

I keep thinking this golf bubble will burst, but it keeps getting stronger and stronger. Our company owns four golf courses. Each of those courses is seeing record rounds in revenue year after year. I think golf has seen the biggest benefit from the pandemic. People have fallen in love with golf again. They enjoy playing it. And it just keeps growing and growing. We hope to continue growing as well.

— B.L.

Continued on page 46

Continued from page 45

Steve Kealy, CGCS

PRESIDENT, Western Washington GCSA
SUPERINTENDENT, Glendale CC,
Bellevue, Wash.

How was this year's golf season in your region?

We're a private club just outside Seattle. We used to do about 25,000 to 26,000 rounds a year. That was pre-COVID. Now we're right at 40,000 rounds. So, we've seen a huge increase in rounds played, and it's up everywhere, public, private, doesn't matter.

How did the weather treat your area?

It was a good year, but it was a much drier spring than is typical — I'm sure we'll pay for it now.

What was the labor pool like this year?

It's difficult, and it's expensive. Here in the greater Seattle area, you're paying \$20 an hour at fast food places. Trying to get summer help is tough because jobs are so abundant. You can go anywhere and get a job. We're competing against construction and general labor across the board, it's costing us to get someone in the door. We're paying \$23, \$24, \$25 an hour.



Steve Kealy

Any notable success stories for your chapter or region this year?

No one won the Nobel Prize or cured

cancer, but I would just say the chapter is healthy. It's a tight-knit group.

What are your expectations for 2024?

I don't see golf slowing down at all. Most of the clubs here have waitlists, and I don't see that changing.

— S.J.

Derek Haley

PRESIDENT, Eastern Shore Association
of GCS

SUPERINTENDENT, Talbot CC, Easton, Md.

How was this year's golf season in your region?

It has been a pretty good golf season. We certainly didn't have any extremes. It was even throughout the whole year with no real surprises.

Continued on page 48



For Western Washington GCSA President Steve Kealy, CGCS, labor has been a challenge with wages continuing to rise into the mid-\$20s.

PHOTO BY: STEVE KEALY

SNOW MOLD PROGRAM

GET TOUGH ON SNOW MOLD

SINGLE-APPLICATION SOLUTION



GRAY SNOW MOLD

There isn't a more proven or powerful combination to battle snow mold than Traction™ and 26/36® Fungicides. Together, these trusted brands from Nufarm use four modes of action for optimum performance and resistance management.

One late-season application. Economical snow mold control. Improved turf quality and color.



Traction™ + 26/36®

Discover it all at NUFARM.COM/USTURF/SNOWMOLD

©2023 Nufarm. Traction™ is a trademark of Nufarm. 26/36® is a registered trademark of Cleary Chemical, LLC.
Photo: William M. Brown Jr., Bugwood.org



Grow a better tomorrow

Continued from page 46

How did the weather treat your area?

We started with a cool spring. That affects our course because we have bermudagrass. It was an odd beginning of the year. Once the weather warmed up, the bermuda started going. It is still going strong now. We had long periods of high nighttime temperatures with heat and humidity. We had very few breaks, there were fewer 75-degree-plus nights this year than ever.

What was the labor pool like this year?

It has been difficult in our area because we are a pretty remote golf course. Thankfully, I have a tenured crew. I haven't had much turnover in the last couple of years. I keep my guys busy. For the most part, they are full-time because we are doing a lot of renovation projects, large-range work and off-season stuff. My club is allowed to keep eight full-timers a year, along with trying to hire another eight to ten seasonal guys.

Any notable success stories for your chapter or region this year?

In terms of our chapter, we've come a long way from where we were last year. We made a bad hire for our administrative assistant a few years ago. We had a lot of our financials get off-track. But we replaced that person with someone good, so we've been bouncing back. For my presidency, last year was extremely stressful, but we've completely turned around. Now, I'm ecstatic about the future.

What are your expectations for 2024?

I still haven't looked toward 2024. I'm still in the middle of a big renovation project right now, which we will work on through the end of the year. Once that is finished, I'll set those goals and expectations.

— B.L.

Glenn McWhirter

PRESIDENT, Alabama GCSA

SUPERINTENDENT, Lagoon Park Golf Course, Montgomery, Ala.

How was this year's golf season in your region?

We're still seeing the boom down here in Alabama. I know for us (at Lagoon Park GC) we were up 4,500 rounds this year. We saw a pretty good revenue increase throughout the state. I know the Robert Trent Jones golf Trail had another record year. A lot of our country clubs are growing, going from hunting members to having wait lists. So we're still experiencing that post-COVID boom for sure.

How was the weather in your area?

We had a bit of a mild spring and one of the hottest summers (in history). We set some temperature records in late July and into August. It was a little bit drier than we've been in the past few years. We averaged 60-70 inches of rain in this area over the last three years and we were down pretty drastically this year. I'd say since mid-August, we've had an inch-and-a-half of rain and that's pretty normal throughout the state. It's been a dry fall, but overall, the weather has cooled off. It's been more of a true fall here, where usually we go from summer to winter.

What was the labor pool like this year?

Talking with superintendents throughout the state, I would say it's been more of an inconsistent thing, where guys have periods where they're heavily staffed. Then they'll lose two or three guys to school and sometimes it's hard to fill those positions, but overall, I would say it's been better.

I know, for us, we've started to be flexible with schedules and maybe doing some overhiring, just knowing that I'm going to lose a few people here and there.

We have two long days during the week, and we're closed on Tuesday whereas all of the other country clubs in the area are closed on Mondays. That flexibility for guys being able to get off early a couple of days a week and being able to get other things done has really helped us.

Any notable success stories for your chapter or region this year?

We hosted a pair of First Green events, which went well. We had over 150 sixth graders (over the two events) and several superintendents from local courses come down and help. The first one we had was definitely a learning experience.

The second one we had went really well. I'd say out of the 75 kids that attended, when I asked, "Could you see yourself doing something like this as a career?" We had probably 20 kids raise their hands. So, I think we made a good impression. The school system we worked with was very positive, so we're looking at doing some more of that next spring.

— R.D.

Ryan Blechta

PRESIDENT, Peaks & Prairies GCSA

SUPERINTENDENT, Spanish Peaks Mountain Club, Big Sky, Mont.

How was this year's golf season in your region?

It has been a good season. We are a private club, so we were up on rounds, but not by a lot. Back when COVID first hit,



Ryan Blechta

we had more requests for rounds, now, we seem to have settled back to where we were at pre-COVID as far as rounds are concerned.

Continued on page 50

— NEW LIQUID —
Tourney® EZ
FUNGICIDE

**Make it look EZ with
start-to-finish disease defense.**

When it comes to preventative and curative turf care, nothing bookends your fungicide program like the new Tourney® EZ liquid formulation. From fairy ring to summer patch, it controls 16 tough diseases with the same low-use rate as granular. Less stress. Fewer diseases. All at a great value.

Learn more at nufarm.com/usturf/tourney-ez



Continued from page 48

How did the weather treat your area?

It has been very wet. In fact, it has been one of the wettest seasons that we've had on record. In that aspect, Mother Nature helped us quite a bit with not needing to water the course as much and not having to chase dry and wet spots around.

What was the labor pool like this year?

The labor pool was pretty normal this year. It was better than the year before. But it is still tough to get labor up in our area. Mainly because people just aren't interested in manual labor. Labor is always the biggest issue. Trying to maximize production level on your golf course

with less labor is, I think, what everybody is trying to look at.

Any notable success stories from your chapter or region this year?

As I said, labor is always a shortage everywhere. The bigger the golf course, the bigger the budget. And that means you can get more bodies. It is tough to get over 20 guys on a crew. Thankfully, I haven't heard of any major difficulties in our area. Whether it's through doing less or trying to find areas where you can manage some of the technology out there, like sprayers or mowers, I think everyone on our team is looking at ways that things can get done and provide members with

a well-conditioned golf course.

What are your expectations for 2024?

Our outlook for 2024 is just continuing to maintain the golf course at a high standard knowing that we will probably not have another wet year. How can we correctly manage our irrigation system? Or can we be fully staffed? Goals like that. We also built a new par three course, so we'll need more staff numbers. So, we want to have enough bodies to get everything done. **G**

— B.L.



The golf season was a wet one for Ryan Blechta, president of the Peaks & Prairies GCSA, and others in Montana.

PHOTO BY: RYAN BLECHTA

PLAYABLE + NATURALIZED AREAS GROWING HARMONY

Naturalized areas can be both beautiful as well as beneficial to your bottom line. However, it is important to remember that naturalized areas do require some level of maintenance to prevent takeover by undesirable weeds. Our line of herbicides will help you achieve optimum balance between naturalized, yet managed, landscape settings and our team of golf experts will guide you every step of the way.

ASK YOUR LOCAL NUFARM REP ABOUT OUR NATURALIZED AREAS PROGRAM

Millennium Ultra²
SELECTIVE HERBICIDE

[NUFARM.COM/USTURF](https://www.nufarm.com/usturf)

©2023 Nufarm. Millennium Ultra[®] is a trademark of Nufarm.

 **Nufarm**
Grow a better tomorrow



SGXL

***LIGHT ENOUGH FOR GREENS,
POWERFUL ENOUGH FOR FAIRWAYS***

The SGXL is a versatile zero-turn multi-function sprayer that eliminates the need for multiple sprayers on a golf course. Maximize your productivity with its swift operation, allowing you to cover more ground in less time.

See it in action here:





Super Science

// WORTH THE INVESTMENT

THE TRUE VALUE OF USGA RESEARCH

By Mike Kenna, Ph.D.

The primary reason for establishing the USGA Green Section in 1921 was to support turfgrass and environmental research. That remains a crucial focus area today.

Since 1983, the Mike Davis Program for Advancing Golf Course Management has invested around \$50 million in approximately 800 university-led projects. The current annual research investment is \$2 million — primarily driven by solicited proposals from university scientists.

However, a question commonly asked is, how has the research impacted golf course maintenance? The results may surprise you!

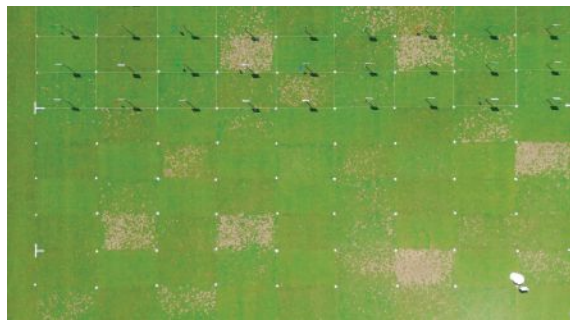
To address this question, the USGA surveyed more than 600 golf course superintendents from various golf courses to gain insight into the utilization and advantages of six research-based management strategies. It's important to note that these strategies have directly benefited from funding the USGA provides to university research efforts.

Analysis of the collected data reveals that golf courses widely embraced research-based management

practices, resulting in an estimated annual savings of \$1.9 billion for the U.S. golf industry. Notably, the primary component of these savings is attributed to labor costs, demonstrating that even highly technical agronomic research eventually leads to increased efficiency in the day-to-day operations of golf courses.

Golf course superintendents also noticed changes in golfer satisfaction following adoption. There is room for more adoption and impact, as the most commonly used strategy was USGA putting green construction techniques at 55 percent of facilities.

The most important takeaway from this study is that turfgrass and environmental research do significantly impact maintenance efficiency, sustainability and overall golfer satisfaction.



According to a recent survey, USGA-funded research has led to improved golfer satisfaction.

While investing in this research may not produce frequent and dramatic breakthroughs, the cumulative effect of the knowledge gained has changed golf for the better. It will continue to do so as long as the USGA funds and supports this vital work.

NEWS UPDATES

ENVU NAMES NEW HEAD OF US TURF

Envu recently named John Price as head of U.S. turf and ornamentals. Price joins Envu after a stint with SBM Life Science, where he served as North American head of marketing and innovation.

"John has a passion for delivering value and serving customers, particularly in this segment," said Mark Schneid, head of commercial operations, Americas, for Envu. "He will make a tremendous impact on our organization and people across the industry."



John Price

Price has served in leadership roles for several companies including The Hershey Co., ScottsMiracle-Gro, Barbasol and SBM Life Science. A St. Louis, Mo., native, John earned his bachelor's from DePauw University and master's from the Kelley School of Business at Indiana University.

“WE’D LIKE TO THANK ALL THE AUTHORS FOR WORKING CLOSELY WITH US TO BRING YOU THE RESULTS OF THEIR OUTSTANDING RESEARCH.”

Mike Kenna, Ph.D.

(see story on page 54)

For more information, please see Thompson, Cole, Don Kridel, and Mike Kenna. 2023. *The Value of Turfgrass Research. USGA Green Section Record. October 20, 2023.* ©

// 2023 IN REVIEW

Revisiting the research projects we highlighted in 2023

By Mike Kenna, Ph.D.

As 2023 winds to a close, it's time to look back at the list of great research articles we logged for *Golfdom* this year. We'd like to thank all the authors for working closely with us to bring you the results of their outstanding research.

What I like about our digital world is that you can click on the title of an article and have it up in seconds. I hope this has been a great year for you all, and we wish you all the best in 2024!

JANUARY *A close look at the impact of golf courses on pond ecosystems*

By Joseph Milanovich, Ph.D., and Martin Berg, Ph.D.

- Concentrations of analytes (fungicides, insecticides and herbicides) measured in golf course ponds were low and infrequently detected for 8/10 analytes examined. Azoxystrobin, a fungicide, was the most widespread analyte measured and tested in mesocosm experiments.

- Amphibian diversity was low across the region and was similar in golf course ponds and ponds in forest preserve habitats.

- Concentrations of algae (both green [Chlorophyta and Charophyta] and blue-green [Cyanobacteria]) were similar across the golf course and forest preserve ponds.

- Water quality was measurably different between golf course ponds and ephemeral (i.e., temporary wetlands) but not between golf course ponds and permanent forest preserve ponds containing fish.

- The results suggest golf course ponds provide similar aquatic ecosystems and macro- and microinvertebrate diversity to more natural, forested ecosystems.

- Azoxystrobin had no measurable, consistent influence on aquatic

organisms (biofilms or amphibians).

- Nitrogen and nitrogen plus phosphorus additions led to an increase in the size and development rate of American toads.

FEBRUARY *Taking a look at a new option for nematode management in turfgrass*

By Will L. Groover, Ph.D., and Kathy S. Lawrence, Ph.D.

- The experiment evaluated a new nematicide, fluazaindolizine (Reklemel active), for its ability to reduce plant parasitic nematode population density and improve turfgrass quality.

- Separate research trials were conducted on bermudagrass infested with root-knot (*Meloidogyne incognita*) and sting (*Belonolaimus longicaudatus*) nematode in field settings over 2018 and 2019.

- Field trials demonstrated a significant reduction for both sting and root-knot nematode population density by multiple rates of Reklemel.

- No significant differences for both visual turfgrass quality ratings and NDVI, but population declines reduced sting and root-knot numbers below the standard 10 and 80 per 100 cm³ of soil.

- Overall, Reklemel shows promise as a nematicide for plant-parasitic nematode management on turfgrass.

PHOTO 1



Belonolaimus longicaudatus (sting nematode) is a large nematode, reaching sizes of about 1/8-inch long when mature.

PHOTO 2



Sting nematode has a long stylet that allows it to feed deep within root tissues.

PHOTOS BY: BRUCE MARTIN

MARCH *New soil tests examine fairway responsiveness to nitrogen fertilization*

By Karl Guillard, Ph.D., Brendan Noons, M.S., and John Inguagiato, Ph.D.

- Compost and organic fertilizer rates have produced a wide range of the Soil CO₂-Burst (CO₂B) and Soil Labile Amino Nitrogen (SLAN) test concentrations in fairway creeping bentgrass plots.
- SLAN and CO₂B test concentrations respond linearly to compost and organic fertilizer rates.

• Fairway creeping bentgrass growth and quality responses strongly correlate to SLAN and CO₂B test concentrations.

• For most variables, trend responses across compost and organic fertilizer rates were generally similar between trafficked and nontrafficked plots.

• Binary logistic regression generated curves to estimate the probability that compost and organic fertilizer rate responses would equal or exceed that of the standard fertilizer treatment.

• The CO₂B test produced better binary logistic regression model fits than the SLAN test.

• The CO₂B and SLAN tests show potential for estimating the mineralization potential of fairway creeping bentgrass soils.

• The 2021 results suggest the potential categorization of fairway creeping bentgrass soils with Solvita tests as to their probability of equaling or exceeding the response of a standard N treatment.

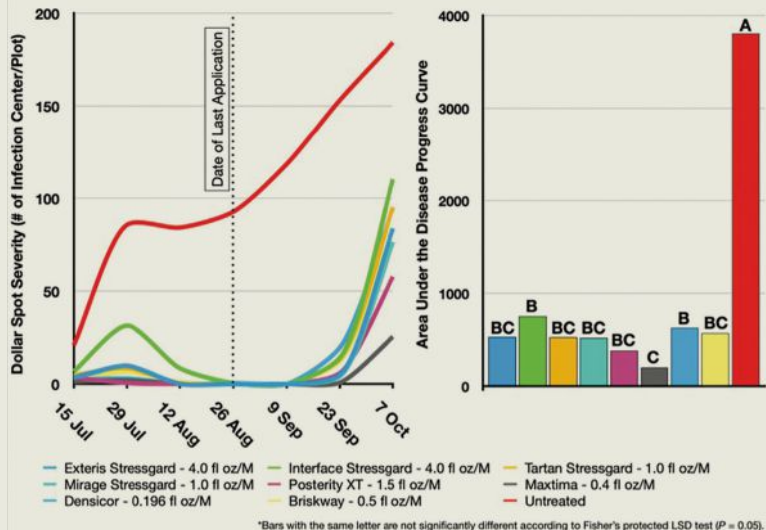
• The Solvita SLAN and CO₂B tests can potentially guide N fertilization of creeping bentgrass fairways.

APRIL *Fungicide effectiveness for disease control on creeping bentgrass fairways*

By Daniel Earlywine and G.L. Miller, Ph.D.

FIGURE 1

Efficacy of various fungicides applied on a 14-day interval on dollar spot in a creeping bentgrass fairway.



• Several fungicide products provided adequate control of dollar spot and brown patch on a creeping bentgrass fairway.

• Xzemplar, Naviocn Intrinsic and Maxtima had significantly fewer dollar spot and brown patch than the untreated control.

• Maxtima had fewer dollar spot infection centers than Densicor 4 to 8 weeks after the last application.

• Maxtima and Densicor were applied at 14-day intervals. Densicor was applied at 21 days controlled brown patch.

• All fungicides performed better than the untreated control; however, products provided significantly different levels of control for both dollar spot and brown patch.

• No turf phytotoxicity was observed for products following any application.

MAY *How a modified TDR affects surface moisture estimation on putting greens*

By Daniel O'Brien, Michael Richardson, Ph.D., and Douglas Karcher, Ph.D.

• Portable time domain reflectometry (TDR) meter measurement capabilities can be expanded using spacer blocks.

• Modified TDR meters can estimate volumetric water content (VWC) at new, shallower depths of 0.5 and 1.0 inches.

• Quadratic prediction models provide good estimates of VWC across a range of conditions.

• Linear models tend to overestimate VWC at the lower end of observed values.

• Surface VWC measurements have potential use beyond golf course putting greens.

JUNE *Breaking down the research on cool-season turfgrass water use and needs*

By Ross Braun, Ph.D., Dale Bremer, Ph.D., Scott Ebdon, Ph.D., Jack Fry, Ph.D., and Aaron Patton, Ph.D.

• Evapotranspiration and deficit irrigation research in cool-season turfgrasses is summarized.

• Average cool-season turfgrass evapotranspiration rates ranged from

Continued on page 56

PHOTO 3



Field Scout TDR300 Soil Moisture Meter and (a) standard 1.5-inch turf rods. Researchers fit spacer blocks (black) onto 1.5-inch rods to achieve new measurement depths of (b) 1 inch and (c) 0.5 inches.

Continued from page 55

5.35 to 7.79 mm d-1.

- Average cool-season turfgrass crop coefficient rates ranged from 0.85 to 0.95.

- Minimum deficit irrigation replacement levels have ranged from 59 to 74 percent of ET.

JULY *What fungicides control Pythium root rot on creeping bentgrass the best?*

By Jim Kerns, Ph.D., Lee Butler, Jill Ploetz, Daniel Freund, Brandi Merrick and E.C.A. Kitchin

• Serata, Subdue and Segway treatment combinations provided excellent control of *Pythium* root rot in North Carolina during July and Aug. 2022 compared to the untreated control.

- However, treatment 2 (single application of Subue in June) was significantly worse than treatments 1, 3, 4 and 5, yet still better than the non-treated control (see Table 3).

- Serata alone and in tank mixtures were effective for the preventative and curative control of *Pythium* root rot (see

Tables 3 and 4).

- Results for Serata preventing *Pythium* root rot were similar to research conducted in South Carolina at Clemson University.

AUGUST *Why snow mold hit golf courses so hard last winter*

By Paul Koch, Ph.D.

- Early winter rains and heavy spring snow led to significant snow mold development across the northern Great Lakes and the Mountain West.

- Snow mold pressure was much lower on putting greens compared to fairways.

- Climate change may continue to alter the winter environment and make snow mold more difficult to control.

SEPTEMBER *Fungicide efficacy on spring dead spot-infected bermudagrass*

By Jill Ploetz, Lee Butler, C.M. Stephens and Jim Kerns, Ph.D.

- An October and November

TABLE 1

Fungicide programs for controlling *Pythium* root rot on creeping bentgrass putting greens.

Treatment program	Treatment, formulation, and rate per 1000 sq. ft.	Application Code ²	Pythium root rot severity (percent)			
			July 11	July 26	August 9	AUDPC ³
1	Serata 20 WDG 0.6 oz. Segway 3.33 SC 0.45 fl. oz.	AEI CGK	0.00 b ⁴	0.00 b	0.00 b	0.00 c
2	Segway 3.33 SC 0.45 fl. oz. Subdue MAXX 2 ME 1 fl. oz. Serata 20 WDG 0.6 oz.	AEI C GK	2.00 ab	0.43 b	0.03 b	14.03 b
3	Segway 3.33 SC 0.45 fl. oz. Subdue MAXX 2 ME 1 fl. oz. Serata 20 WDG 0.6 oz.	AG CI EK	0.00 b	0.38 b	0.40 b	1.74 c
4	Segway 3.33 SC 0.45 1 oz. Serata 20 WDG 0.6 oz. Signature Xtra 60 WDG 4 oz.	AEI CGK ACEGIK	0.00 b	0.38 b	0.25 b	1.34 c
5	Segway 3.33 SC 0.45 fl. oz. Serata 20 WDG 0.6 oz. Appear II 4.1 SC 6 fl. oz.	AEI CGK ACEGIK	0.00 b	0.08 b	0.03 b	0.57 c
6	Untreated control	—	5.30 a	7.75 a	15.25 a	233.40 a

² Application code indicates date of each treatment: A-1 Jun, C-15 Jun, E-30 Jun, G-13 Jul, I-27 Jul, and K-11 Aug

³ AUDPC represents Area Under Disease Progress Curve.

⁴ Means within columns followed by the same letter are not significantly different according to Fisher's Protected LSD test ($P \leq 0.05$)

PHOTO 4



Aerial view of our research trial at Marquette GC in Marquette, Mich. Though there are some green rectangles, there is much more disease breakthrough than we typically experience.

application of Kabuto 3.3SC at 1.6 fl. oz. per 1000 ft. sq. significantly controlled spring dead spot in bermudagrass.

- Lower Kabuto application rates of 0.75 and 1.2 fl. oz. per 1000 sq. ft. in combination with Tekken 1.8SC at 3.0 fl. oz. provided adequate control.

- Lexicon Intrinsic 4.17 SC at 0.47 fl. oz. and Velista 0.5 WDG at 0.7 fl. oz. per 1000 ft. sq. provided some control; however, both fungicides did not have significantly different AUDPC estimates compared to the non-treated control in 2018.

- Two fall applications of Posterity 1.6SC at the higher rates of 0.32 and

0.24 fl. oz. performed significantly better than the non-treated control.

- In 2019 Velista 0.5 WDG at 0.5 oz per 1000 ft. sq. performed better than the previous fungicide trial in 2018.

- All application rates of both Posterity Forte 2.5SC and Posterity 1.67SC alone and combined with Headway 1.39ME applied at 1.5 fl. oz. per 1000 ft. sq. provided significant control compared to the non-treated control.

OCTOBER *Late-Fall Wetting Agent Application and Ultradwarf bermudagrass*

Winter Survival

By Eric DeBoer, Ph.D., Doug Karcher, Ph.D., John McCalla and Mike Richardson, Ph.D.

- A late-fall wetting agent application may reduce winter injury on bermudagrass putting greens.

- Wetting agents generally reduced hydrophobicity in the top 2 cm of the sand root zone.


- Soil volumetric water content did not differ between treatments on any sampling date throughout the trial. 

FIGURE 2

Effect of late-fall wetting agent applications on the green turfgrass coverage of an ultradwarf bermudagrass putting green in Fayetteville, Ark., from 2016–2018.

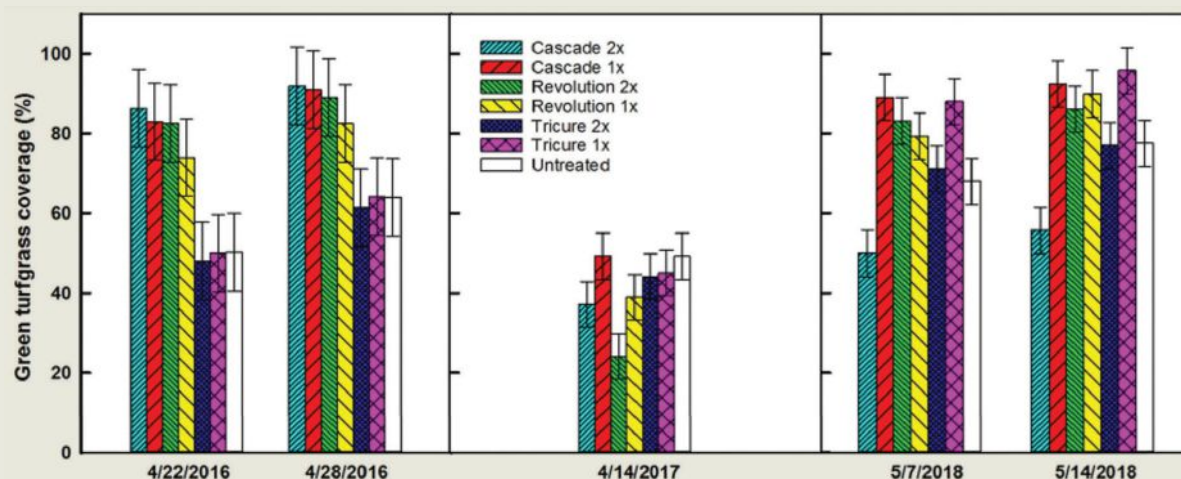
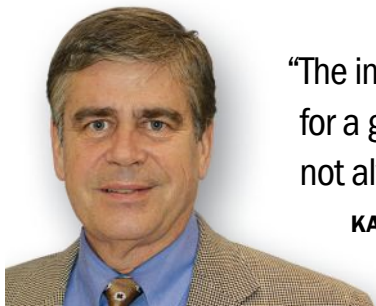


PHOTO BY: TOM STEGAUF



“The impact of El Nino on the weather for a given portion of the country is not always predictable ...”

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

Be ready for El Nino

Over the last two or three years, La Nina has influenced winter weather throughout much of the country. This winter, that will change with an El Nino likely to dominate the weather pattern. The occurrence of an El Nino is thanks to Southern Oscillation (ENSO).

ENSO refers to the yearly cyclic variation in surface ocean temperatures and rainfall that occurs across the equatorial Pacific Ocean. ENSO is a significant global climate driver by changing the global atmospheric circulation, which in turn influences temperature and rainfall.

El Nino and La Nina refer to the extremes in the ENSO cycle. When the Pacific Ocean surface temperatures are warmer when compared to the average water surface temperature of the ENSO cycle, we refer to this as an El Nino.

Conversely, a La Nina occurs when the surface temperatures are cooler than average.

In the United States, we experience the greatest impact of an El Nino during the winter months from October through March. The impact of El Nino on the weather for a given portion of the country is not always predictable as there is no guarantee when it comes to the weather, especially when it occurs over a large geographical area like the United States.

However, given past El Nino events, we can draw upon that knowledge and predict within a reasonable range what will occur this winter and how that might influence management practices on golf courses nationwide.

WHAT TO EXPECT

El Nino has the potential to accentuate turfgrass stress conditions. If we look at general trends associated with El Nino, we can expect changes in weather patterns across the country.

In southern parts of Texas, Louisiana, Mississippi, Alabama, Georgia, South Carolina and the northern part of Florida, cold and wet conditions are expected. These cool conditions are due to the shift southward in the jet stream that occurs during an El Nino phase. Along the jet stream storms increase in frequency and bring wetter conditions.

From a turfgrass management perspective, I might expect an increase in the potential for cold injury to southern turfgrasses through the southeast,

especially along the jet stream path. Additionally, increased rainfall and potentially snow could increase the potential for flooding. In general bermudagrass and zoysiagrass have excellent flood tolerance.

In areas north of the jet stream, like the Midwest, expect drier and warmer temperatures compared to the averages. Being optimistic, warm and dry conditions may extend the golfing season in some areas. In areas where more play occurs, the potential for wear injury can increase. Wear patterns from golf cars and areas of golfer concentration like putting greens and tees will need to be monitored and practices instituted to account for increased wear.

In parts of the Midwest and northern Great Plains that have suffered degrees of drought during the fall, the increased potential for drier conditions could increase the potential for desiccation injury.

In the Mid-Atlantic area, El Nino is often associated with cooler temperatures. Increased precipitation in the form of both rain and snow is also expected. Microdochium patch could become severe, especially in areas where moderate levels occur during a normal winter.

Understanding what an El Nino is and how it might affect your local weather this year can warn you of potential turfgrass issues that could arise this winter. Now is the time to anticipate and identify potential turfgrass problems and develop strategies to address them. **G**

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



“The endowment secured TGIF’s future and kickstarted digitization efforts, enabling users to read articles online.”

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

A USGA success: The history of the Turfgrass Information File

The Turfgrass Information File (TGIF) is a remarkable success story of the USGA Green Section, a testament to the foresight and commitment of the organization. Michigan State University has provided information on turfgrass research and education for 40 years.

In September 2023, MSU Libraries made the TGIF database publicly accessible to everyone. The release of the publicly accessible TGIF database coincides with the 40th anniversary of the partnership between the USGA and MSU Libraries.

In the early 1980s, the Green Section Turfgrass Research Program (now the Mike Davis Program for Advancing Golf Course Management) identified a pressing need: a comprehensive turfgrass research reference library accessible through a computerized database.

This initiative eventually led to the establishment of TGIF and a lasting partnership with the O.J. Noer Memorial Turfgrass Collection at the Michigan State University Libraries.

The O.J. Noer Memorial Turfgrass Collection, named in 1968, originally belonged to O.J. Noer, who amassed a wealth of turfgrass science, culture and management literature during his career. His collection found a home at Michigan State University, thanks to the efforts of Drs. James Beard and Richard Chapin.

DIGITAL WORLD

In 1983, the Green Section Research Committee sought proposals to develop a computerized data bank and make it accessible to turfgrass researchers. The vision was to centralize turfgrass research data worldwide and offer valuable information to the golf industry.

At the time, turfgrass literature was rapidly expanding, but it was scattered across various locations. Through the research committee, the USGA realized that turfgrass literature was rapidly growing and widely dispersed in the U.S. and other countries.

Despite the promising progress in collecting literature and building the database, remote access to TGIF was challenging in the late 1980s. Dial-up procedures and slow-speed modems hindered easy access, and there were concerns about the flow of information. The USGA had already invested \$400,000 in the project, so the research committee aimed to simplify access.

More than 25,000 materials were in the database by 1992. While online computer searches improved, the only way to access full articles was to have a

physical magazine or journal.

The growth of the internet from 1992 to 1995 revolutionized access to TGIF. The transition from a text-based internet to graphical web browsers like Netscape Navigator enabled online browsing. TGIF adapted to support internet access in 1993 with USGA funding, catering to users’ desire to read articles online.

By 1997, TGIF was available on the internet, with the growing demand for online article browsing. The collection had expanded to over 42,000 entries and 300,000 keywords.

SECURING THE FUTURE

In 1998, Michigan State University Libraries secured the future of TGIF by establishing an endowment to support staffing and maintenance. The USGA pledged \$1,000,000 toward this endowment, which aimed to reach at least \$2,000,000. Interest from the endowment would fund ongoing operations, ensuring the database’s longevity.

The endowment secured TGIF’s future and kickstarted digitization efforts enabling users to read articles online. The *USGA Green Section Record* was first, followed by professional and trade magazines, including *Golfdom*.

Today, TGIF is more than just a database; it’s the world’s turfgrass science and culture library, with more than 305,000 records, and it continues to grow daily. More than 65 percent of the records link to full-text documents.

The visionary efforts of the USGA Green Section Turfgrass Research Committee, combined with the USGA’s unwavering financial support, have made TGIF a valuable resource that will benefit generations to come. It has transformed how we access and utilize turfgrass literature, enhancing the field’s knowledge and application in the golf industry and beyond. **©**

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

The 19th Hole

Matt Dachowski

SUPERINTENDENT // Lake Merced GC, San Francisco

EAGLES

Matt, drinks are on me. What are you having?

Michter's on the rocks if they have it. If not, any decent bourbon will do.



but also a lot of fun. They're really starting to develop and we're starting to see their personalities. They're going to be crawling very shortly.

Tell me about Lake Merced GC. We just opened it up about a year ago after a full-course renovation by Gil Hanse. We've been open for a year now to rave reviews. I got to play it yesterday. It's so much more fun than the old course and everybody's just enjoying it. I feel like we keep getting better condition-wise. We just celebrated our 100th anniversary as we reopened. I'm only the fifth superintendent here in those 100 years.

And you recently became a dad, congratulations! We had twins, Beau and Brooke, who were born in February, so they're eight months now. That's why I'm tired right now. They're a lot of work,

What teams do you root for? I'm a Philly guy, so all the Philadelphia teams ... the Eagles, Phillies, 76ers, the Flyers and Penn State.

What is your all-time golf highlight? When I was in school at Penn State, I was in a tournament, I was four over with six holes left to play. I see Joe Pa come walking down the street right next to the course ... and then I go birdie, par, eagle, par, birdie, par to finish even and I won the tournament.

You're from back east. How do you like living in the San Francisco area?

I like it a lot. Within a couple hours' drive in every direction, there's a ton of nature. I do a lot of fishing and hiking. There are all kinds of opportunities for doing all that around here in Northern California.



What is the strangest thing you've seen on the golf course? Last winter, after we opened back up, we had 6 inches of rain and all our drains were backed up. We had water up against an apartment building. It was probably 12-to-15 feet deep backed up and we were trying to open up the drain. My assistant Cade (Cutchen) was out in a wet suit on his surfboard with a big rake trying to find the top of the drain. That was a pretty interesting morning. He lost the surfboard. It ended up going over the fence.

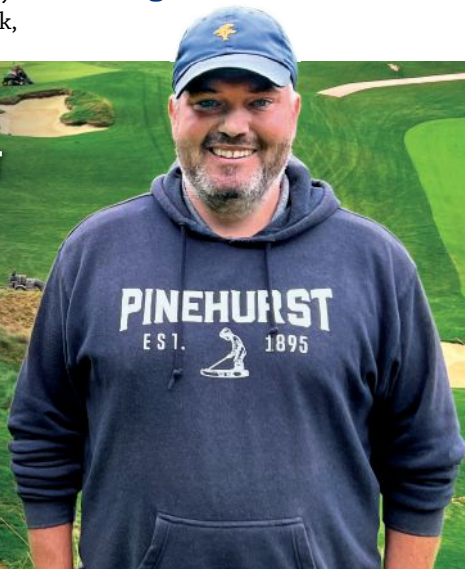
As interviewed by Seth Jones, November 4, 2023.

BROUGHT TO YOU BY

Kafka Granite LLC

// BEST ADVICE

"I PREACH TO MY GUYS THAT WE CAN BE SUCCESSFUL WITHOUT OVEREXTENDING OURSELVES — WE DON'T NEED TO BE MARRIED TO THIS PLACE. THE COURSE, THE JOB IS STILL GOING TO BE HERE THE NEXT DAY."





**EROSION RESISTANT
MAINTENANCE FREE
EASY TO INSTALL
DUSTLESS**

Natural Crushed Stone Wax Polymer Pathway Material

Cut down on maintenance while preserving a natural look and feel with Kafka's patented Wax Polymer Pathway Mix. The ease of installation and limited maintenance makes our Wax Polymer Pathway Mix a top choice for beautiful, yet resilient, pathways on courses throughout the United States.

Natural Stone. Groundbreaking Solutions.

LET US PROVE IT.

Mention this ad for a **FREE** trial of our Wax Polymer Pathway Mix.

kafkagranite.com/golf
800-852-7415

SLF1 ELITE

SUPER-LIGHT FIVE REEL LITHIUM MOWER



EARN YOUR SLF STRIPES



- PROVEN, POWERFUL, PERFECTED CUT QUALITY
- +5.5 HOURS RUN TIME ON A SINGLE CHARGE
- LIGHT & AGILE FOR UNDULATING TURF
- QUIET, CLEAN HYDRAULIC-FREE DESIGN

Proven

Samsung Lithium technology with 60 million hours of use on the finest professional turf worldwide.

Performance

Lighter weight, with no hydraulic oil.

Virtually silent operation and minimal vibration.

Traction

All-wheel drive takes on the most complex manicured areas.

Range

Jake's leading 508 amp-hour ELITE Li-ion battery.

On-board charger re-powers overnight and fits with most universal electrical infrastructure.

Our most advanced on-board and remote-ready monitoring system lockable speed and frequency of clip controls.

CUT
WIDTH
82"
(2.08M)

CUT
HEIGHT
0.30" - 0.70"
(7.62MM - 17.8MM)

BLADES
PER REEL
8 OR 11

CUTTING
REELS
5X5" (12.7CM)
DIAMETER
X18" REELS

LITHIUM POWER
SAMSUNG SDI
25.5 KWH
508AH

SMART
ALL-WHEEL
DRIVE



SINCERELY

Jake

For information and support:
www.jacobsen.com / +44 (0) 1473 270 000 / +1-888-438-3946



Actual operating power output may vary due to conditions of specific use.
Run time will vary based on conditions of specific use, accessories, and terrain.
NOTE: Specifications, while correct at time of printing, may change without notice.

© 2023 Textron Specialized Vehicles Inc.

