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November 2023

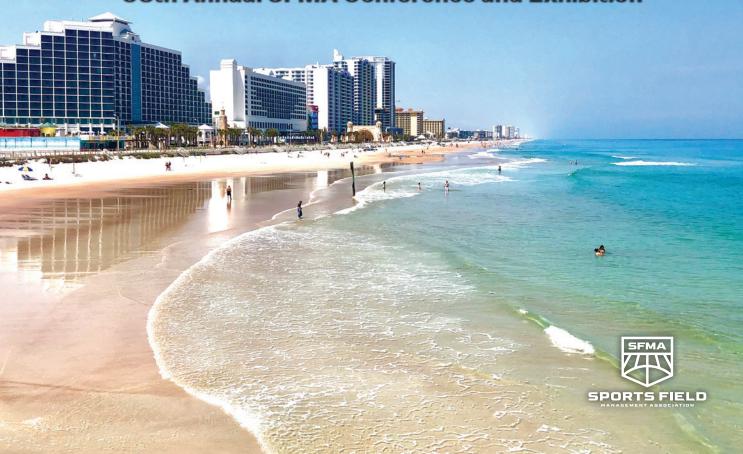
Vol. 39 No. 11

The Official Publication of the Sports Field Management Association

Schools and Parks Sporting Grounds Field of the Year **8**Sports Field Lighting **30** | The Impact of Extreme Weather **34**

Changes in Latitudes

Chart a course to Daytona Beach for the 35th Annual SFMA Conference and Exhibition



HIGH QUALITY, LOW INPUT VARIETIES



The Alliance of Low Input Sustainable Turf (A-LIST) is an independent, non-profit, industry initiative, fostering development of sustainable turfgrass varieties and related products that perform their function with less maintenance inputs, thus benefiting the environment. A-LIST monitors a voluntary evaluation program including metrics like water conservation, reduced fertility and traffic, heat, and drought stress tolerances, all with no fungicide or insecticide applications.

Products that meet the acceptance criteria can utilize the A-LIST Approved symbol in their marketing and receive the A-LIST Approved tag for use in packaging.

To become an A-LIST Approved Variety, a variety must have demonstrated superior performance in A-LIST trials as defined by:

- The top LSD group for drought tolerance as measured by percent green cover for each of two years in at least two locations.
- Acceptable or better turf quality for each of the two years in at least two locations.
- Have been entered into an NTEP trial for the species. For new cultivars that have met the approval standards for performance in A-LIST trials, final approval will be withheld until the cultivar(s) have been entered into an NTEP trial.



SUSTAINABLE VARIETY



REDUCED INPUTS



HEAT TOLERANCE



WATER USE

Members:





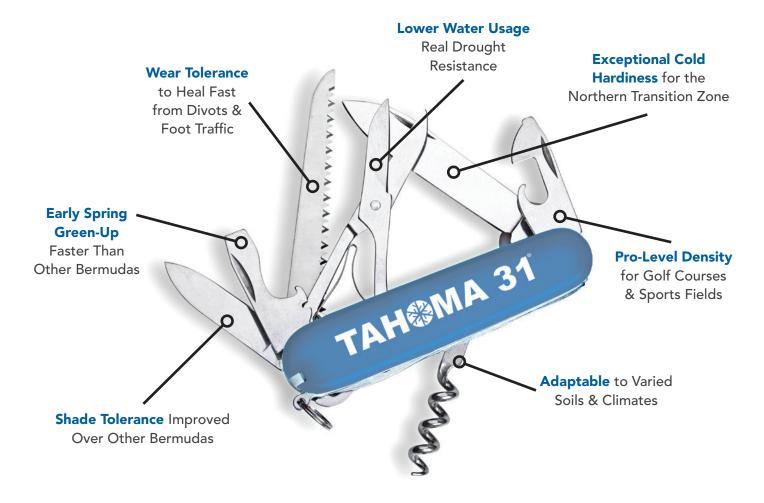








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Contents

NOVEMBER 2023 VOL. 39, NO. 11



30

Lighting

Bright Ideas: Lighting considerations for sports fields and facilities

34

WeatherExtreme Weather Influences:
On and Off the Field



Ω

Field of the Year Schools and Parks Sporting Grounds

Pace Academy Lacrosse Field: Mableton, Georgia

14

Conference Preview

The 35th Annual SFMA Conference and Exhibition

24 The Fast Track to Fun: What to do while in Daytona Beach for SFMA Conference



DEPARTMENTS

6

Editor's Note

...

President's Message

17

John Mascaro's Photo Quiz

40 Accessing the Archives

44

From the Feeds
46

Innovations

48

Marketplace

49

SFMA Chapter Contacts

50

Q&A

Cover photo courtesy of Daytona Beach Area Convention and Visitors Bureau

We Give You the Home Field Advantage.







Topdressing On game day, having a quality field is crucial to your team's advantage. Get your topdressing done right. From the CR-15, a 4 cubic yard topdresser/material handler, to the number one-selling WideSpin™1550 to the greenest option, the Mete-R-Matic® Turfco provides the most comprehensive line on the market today.



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Editor's Note



John Kmitta
Associate Publisher I
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I recently returned from another successful trip to Louisville, Kentucky for the annual Equip Exposition conference and trade show. Equip Expo continues to grow as it showcases the latest in outdoor power equipment (OPE) technology and trends. I've been visiting Louisville for the conference almost every year since 2001 (back when it was still the International Lawn, Garden and Power Equipment Exposition).

This year's Equip Expo once again broke attendance and exhibit space records with more than 27,000 attendees, more than 1 million square feet of exhibits on the indoor trade show floor and more than 30 acres of outdoor demonstration area.

OPE trends and new products continue to center on battery-powered, robotic and autonomous equipment, but there were plenty of gas and diesel product introductions in Louisville as well (see sportsfieldmanagementonline. com for details on Equip Expo product launches).

In addition to new product introductions and outdoor demo opportunities, Equip Expo featured a wealth of industry education, a keynote address from Polar Explorer Ben Saunders, an opening reception with concert, networking opportunities, the Mutt Madness dog adoption event, a 5K run, an arena concert headlined by Third Eye Blind and much more.

The Professional Grounds Management Society (PGMS) also held its annual conference, "Transform," October 17-20 in Louisville. In addition to providing attendees with access to Equip Expo, Transform featured interactive programs, educational seminars and industry awards.

Michael Goatley, Ph.D., earned the PGMS Gold Medal award, which recognizes "outstanding and long-term achievements and/or contributions to the green industry." PGMS stated that it is "proud to recognize his profound influence on the industry's future by laying the groundwork for the success and innovation of tomorrow's leaders through education and professional development."

The PGMS Special Award of Distinguished Service went to Joe Kovolyan, CGM, of Vanderbilt University; while Brandon Haley, CGM, of SSC Services for Education in Moody, Alabama, earned this year's President's Award.

The PGMS Green Star Award in the Athletic Complex category was won by The University of Arizona. Stated PGMS, "No matter the distance from campus, the fields and grounds are provided a high attention of detail to ensure the place is glowing like a true oasis in the desert."

Information on all PGMS Green Star Award winners can be found at pgms. org/page/2023GreenStarWinners. **SFM**



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President's Message



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Churchill; Forrest Jammer; John Kmitta;
and David Schwandt.

Hello, Fall! What a great time of year it is in Colorado! Fall sports seasons are wrapping up, our cool-season grasses are slowing down, and we've had some incredible weather up to this point. The mornings getting cooler and the days getting noticeably shorter are certainly signs of a change — it's conference season!

Coming up fast in January, 2024 is the 35th Annual Conference and Exhibition in Daytona Beach, Florida. The beginning of November is our fall meeting for your board of directors to finalize all things conference, which the planning committees and SFMA staff have been working on since we returned home from Salt Lake City last year. The Conference Education committee has put together a great slate of sessions from submissions received during the call for presentations. You will see an indepth preview of the conference, exhibition and events in this issue. Feel like something is missing? It's never too early to start thinking about what topic you want to present in 2025!

It's also almost Thanksgiving. As I dig out my hoodies, puffy vest and boots (skip the pumpkin spice anything) and recover from an intense fall sports schedule, I feel grateful for so many things in my life. I have an incredible wife and family — both relatives and chosen — as well as great friends



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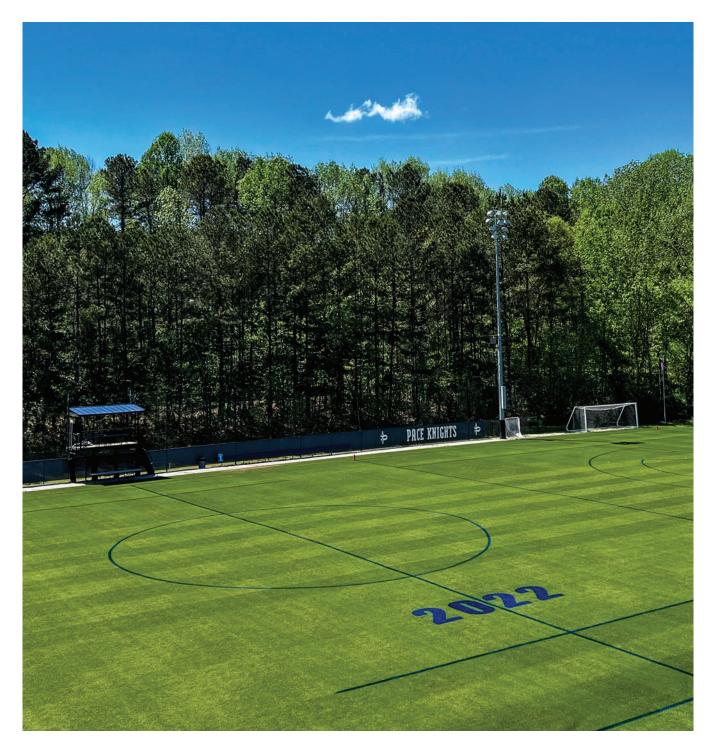
who support this crazy, amazing turfgrass life of mine. I really enjoy my career, #BestOffice, and am extra lucky to get to work with one of my closest friends daily — Christi Clay, CSFM, #Crewof2. This year has been filled with impactful professional experiences, including Little League Softball World Series grounds crew, speaking at several conferences and connecting with many of you.

The most impactful experience that I'm grateful for is serving as your president and working side by side with Laura Simmons as we prepare to set SFMA up for a growth-focused future. Although you're not done with me yet...

This month you will also see the SFMA Board of Directors ballot sent to your email on file. Please take a minute to make sure we have your updated contact information, so you have a say in the direction of our future by voting for the board leadership.

I hope you have a fantastic, crowded Thanksgiving table with people who fill your cup, rejuvenate your spirits and reenergize you for the upcoming season. Cheers, and thank you for all you do. **SFM**

Sun Roesslein, CSFM



PACE ACADEMY LACROSSE FIELD

MABLETON, GEORGIA

The Field of the Year Awards program is made possible by the support of sponsors Carolina Green Corp., Precision Laboratories, John Deere and World Class Athletic Surfaces.



Pace Academy built what is now known as the Lacrosse/Auxiliary Field back in 2008 as the first installment of the Riverview Athletes Sports Complex. This field was the original home of the Pace Academy football team until Walsh Field was constructed in 2014. It has never been fully renovated and has only had a handful of re-sod installments to fix wear areas from lacrosse games and practices. I preface with that so that you can understand the lengths our crew has to go through to combat thatch layers, organic buildup, drainage issues and overall aging of a 14-year-old playing surface that we believe is kept in prime condition for our student athletes.

Pace Academy's Lacross Field is the practice and game site for girls and boys varsity through middle school lacrosse, boys and girls middle school soccer, occasionally a varsity soccer match and girls flag football. This field is also the play area for hundreds of kids during football games in the fall. It is safe to say this field never sleeps — especially during

the spring season with more than 35 practice days and 48 games within a four-and-a-half-month span. Therefore, with it being our oldest field, we tend to have to give it some additional attention during these heavy stretches. That is additional turf maintenance, as well as innovative ideas to reduce wear and tear as much as we can. This year we handcrafted turf goal mouth covers that our teams used at practice to reduce damage in the crease.

To go along with our extensive slate of sporting events, Pace's Lacrosse Field was also the home for our school's Fall Fair in 2021. This included having several large inflatables, dunk tanks, mini golf and other carnival games scattered around our field for an entire day. This set us back quite a bit on our ryegrass grow-in and forced us to add additional rye in preparation for spring sports. Luckily, the weather cooperated and stayed warm through the beginning of December and allowed a productive yield.

— Daniel Prince, Riverview Sports Complex manager



Level and category of submission: Schools and Parks Sporting Grounds

Field manager: Daniel Prince

Title: Riverview Sports Complex Manager

Education: Bachelor's Degree in Landscape Architecture

Experience: I began working on sports fields as a student worker while attending the University of Georgia in 2010, helping maintain UGA's Jack Turner Women's complex, as well as helping maintain Sanford Stadium. Upon graduation, I was hired as the grounds foreman over the Jack Turner complex and worked there until mid-2015 when I accepted the softball field manager position at Georgia Tech. In 2018 I accepted the Riverview Sports Complex manager position at Pace Academy, taking care of four game fields and two practice fields.

Full-time staff: Larry Fricke
Original construction: 2008

Turfgrass: Tifton 419 bermudagras

Rootzone: Sand

Drainage: 4" sand cap with 12" perforated collectors, as well as a small crown to move water to our ACO

trench drains on the edges of our field.

Certified Bermudagrass

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SCHOOLS AND PARKS SPORTING GROUNDS

SportsField Management (SFM): Congratulations on the winning field. What are you most proud of with this win?

Daniel Prince: I would have to say the fact that our lacrosse field is our oldest and most used field for in-season events is what we are most proud of. It was constructed back in 2008, and to be able to display the longevity of use and our crews' hard work to keep it in top condition speaks volumes on what grass playing surfaces can truly do.

SFM: What challenges have you faced with your lacrosse field and how have you approached those challenges? **Prince:** Well, like anybody who has ever worked on a grass lacrosse field, there are tremendous challenges day to day seeing how their wear areas are so concentrated. The creases get the most use every day at practice and during games; so, about once a week, we were solid tine aerifying and spreading green divot repair sand mix. This helped maintain a sturdy grass surface and saved the turf from compaction. We also implemented custom artificial tarps to put in the goal mouths to minimize wear during practices.

SFM: You have a string of field of the year wins in recent years for various fields in various sports. Your FOY application mentions yourself and Larry Fricke. What type of part-time or seasonal help (if any) do you get, how

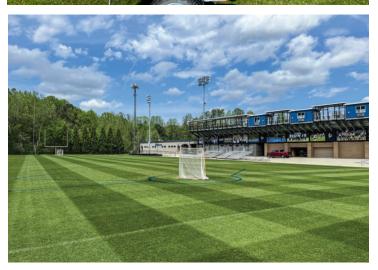












do you balance your workload, and what does your typical process look like for managing your fields/facilities?

Prince: It is pretty much only us two that take on the field work. We have a few other guys that help when we need facility maintenance, but when it comes time to do anything on the fields it's normally only Larry and myself. Our process is I come up with a game plan on what needs to be done and our timeline for each part of our turf program, and then divide out the responsibilities between Larry and myself to accomplish each task. Larry has been here for each of our FOY wins and is a vital part of making the fields look and play the way they do.

SFM: You mentioned in your FOY application about hosting a Fall Fair carnival on the Pace Academy Lacrosse Field. What is your approach for dealing with non-sports-related events/ activities on your fields, and/or what advice do you have for other sports field managers when it comes to managing these types of events? **Prince:** First, we look at what type of event it is, how much traffic, wear areas we are going to have, and the volume of people on the field. Once we have that nailed down, we look and see how long the event is going to be, and how long the set-up will take. If it's a couple days that we are going to have stuff out on our fields, we know we have to apply to correct foliars to help mitigate the damage of the plant itself. We normally apply PGRs, fungicides and some low-level fertilizers to get our grass through the stress it ultimately undergoes in these situations.

SFM: Is there anything we might not have touched on here, or in previous interviews regarding your FOY wins, that you would like to share?

Prince: I would say it's just an honor to work at a school that takes pride in their fields and respects the personnel that makes each game and event happen. Our Directors, Dave and Wes Fortier, and our Headmaster, Fred Assaf, understand what it takes to maintain these fields at the level we strive to achieve. At a high school level, that is hard to come by these days. **SFM**

The 35th Annual SFMA Conference and Exhibition



Photo provided by Daytona Beach Area Convention and Visitors Bureau. All other photos provided by SFMA.

The 35th Annual Sports Field Management Association (SFMA) Conference and Exhibition will be held at the Ocean Center Convention Center in Daytona Beach, Florida, January 22-25, 2024. It will feature seven education tracks, a full trade show/exhibition, networking opportunities, keynote address, SAFE fundraisers, the SFMA Student Challenge, Seminar on Wheels and much more. The following preview provides in-depth insight into the 2024 SFMA Conference & Exhibition, but for more information or to register, visit www.sportsfieldmanagement.org/conference.

SCHEDULE AT A GLANCE

For tracks and detailed descriptions of each session, visit SportsFieldManagement.org/Conference.

SUNDAY, JANUARY 21

1 - 5 p.m.: Volunteer Field Rebuild —

Palm Terrace Elementary School, Volusia County, Florida. *Transportation provided*.

MONDAY, JANUARY 22

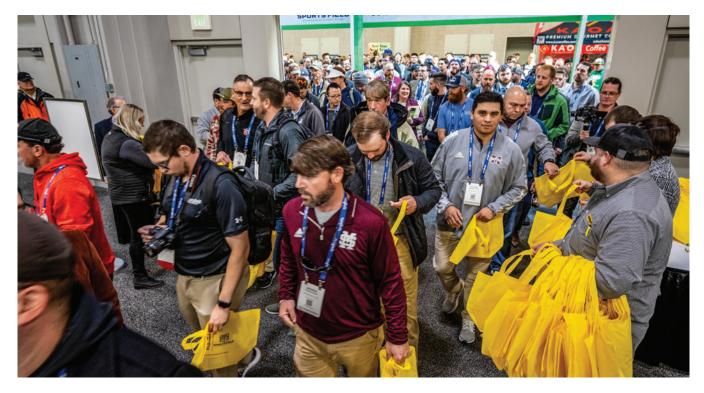
6:30 - 8 a.m.: Continental Breakfast

6:45 am - 3 p.m.: SAFE Golf Tournament -

A fundraiser for the SAFE Foundation being held at LPGA International. *Transportation and lunch provided.* Additional fee required.

6:45 am - 5 p.m.: Seminar on Wheels —

Visit TIAA Bank Field/Jacksonville Jaguars, Flagler College, and more. Transportation and lunch provided. Additional fee required.



10 am - 1 p.m.: SAFE Cornhole Tournament —

A fundraiser for the SAFE Foundation. Additional fee required.

1:15 - 5 p.m.: Pre-conference Education — Turfgrass Basics

6 - 9 p.m.: SAFE Bowling Tournament —

A fundraiser for the SAFE Foundation being held at GameTime Daytona. *Transportation and dinner provided*. Additional fee required.

TUESDAY, JANUARY 23

6:30 - 8 a.m.: Continental Breakfast

8 - 9:30 a.m.: General Session —

Expert Baseball Panel: Player Perspectives, Special Events, Rule Changes, and More! — Phil Bradley, Murray Cook, Ryan Woodley, Matt Brown (see page 20)

9:45 - 10:45 a.m.: Conference Education —

- Starting From Scratch: Complete MiLB Field Renovation *Keith Winter*
- Parks and Recreation: Situations Encountered in a Municipal Setting *Derek Hollanitsch*
- Embracing Diversity in Sports Turf Management: Why it Matters Alpha Jones, CSFM, Maritza Martinez
- Quantifying How Natural Grass Sequesters Carbon Scott Bills, CSFM, Cindy Code
- Optimizing Rootzone Conditions: Warmed Air, Air Consistency and Pipe Technology Mark Heinlein, MSc, CFB, Amy Fouty, CSFM

■ Soil Testing Interpretation and Application — Travis Shaddox, Ph.D.

11 am - Noon: Conference Education —

- Practical Applications for Testing in Turfgrass SystemsKyle Foreman
- Turfgrass Irrigation: Water Quality, Quantity and Lack Thereof *Marco Schiavon*, *Ph.D.*
- New Approaches for Testing Sports Field Safety and Performance Gerald Henry, Ph.D., Erick Begitschke
- Smart Team Project: Unlocking Secrets Behind Athlete Performance and Safety Thayne Munce, Ph.D., FACSM
- Sustainability in Turfgrass Management Crystal Rose-Fricker
- Prepping for Qatar 2022, Hotter than an Oven Philip Sharples, HND

Noon - 2 p.m.: F.I.E.L.D. Forum (formerly the Women's

Forum) — Inclusion on the Turf: Fostering Space Where All Can Grow — Brandon Bell, M.Ed.

2 - 3:15 p.m.: Conference Education —

- Sustainable Turfgrass Management for Municipalities and ISDs *Phil Lozano*
- Let's Talk About Mental Health Lisa Goatley, MS, LPC, Jason Bowers, CSFM, Willis Coulson
- Soils 201: Athletic Field Soils and How to Manage Them Barry Stewart, Ph.D., Cale Bigelow, Ph.D.
- Back to Basics: Infield Edging and Renovation Trevor Warner





- Developing a Shallow-Profile Playing System for the 2026 FIFA World Cup Ryan Bearss, Jackie Guevara
- Back to Basics: Understanding Weather Concepts and Making Weather-Based Decisions *Brad Jakubowski, Ph.D., Matt Neri*

3:30 - 5 p.m.: Conference Education —

- Prevention Beats Intervention in Sports Field Management *Mike Goatley, Ph.D., Jim Puhalla*
- Basamid for Athletic Field Renovations *Travis Gannon, Ph.D., Fred Yelverton, Ph.D.*
- Common Pitfalls to Avoid During Field Construction Projects — Michael Boekholder, Chris McGill, Jamie Mehringer
- Synthetic Baseball Infields: Research and Real Game Impacts *Kyley Dickson, Ph.D., Jody Gill, CSFM, Kennie Holmes*



- What's New in Bermudagrass Winter Overseeding Cale Bigelow, Ph.D., Jada Powlen, Ph.D.
- Total Toolbox Troubleshooting for Irrigation: Sights, Sounds, Shovels and Circuits *Brad Jakubowksi, Ph.D., Matt Neri*

5:30 - 6:30 p.m.: First Timers/International/CSFM Reception

6:45 - 7:15 p.m.: Live Auction benefitting the SAFE Foundation

7:30 - 10 p.m.: Welcome Reception

WEDNESDAY, JANUARY 24

6:30 - 8 a.m.: Continental Breakfast 8 - 9:15 a.m.: Conference Education —

- J.13 d.m. Conjerence Education —
- The ABCs of PGRs for Turfgrass Aaron Hathaway
 Organizational Shift: Changing the Culture of the

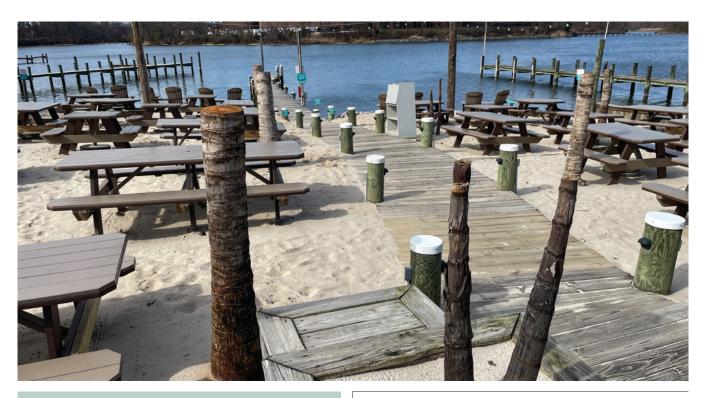
Workplace — Eric Harshman, CGM, Josh Koss, CSFM

- Rejuvenating Your Baseball Field for a New Season Paul Cushing
- Potentially Reduce Fertilizer and Irrigation Inputs on Athletic Fields *AJ Lindsey, Ph.D.*
- How Branding Can Impact Your Crew, Career and Community Meg Kruger
- Pushing the Limits: Sprigging Bermudagrass North of Chicago Zach Simons

9:30 - 10:45 a.m.: Conference Education —

- You Want to Put What on the Field? Rob Sikma
- Learning by Failing Kevin Mercer, CSFM
- Fixing Florida's Largest Sports Field System: A Cinderella Story *Greg Brown*
- Keeping Tools in the Toolbox: How to Talk About Pesticides *Megan Provost*
- The Pesticide Timeline: From Lab to Shelf Chrissie Segars, Ph.D., Jeff Marvin, Ph.D.
- Using A Robotic Mower on a High-Level Professional Field Wes Ganobcik

JOHN MASCARO'S PHOTO QUIZ



CAN YOU IDENTIFY THIS TURFGRASS PROBLEM?

PROBLEM:

Missing palm treetops

TURFGRASS AREA:

Tiki bar

LOCATION:

Glen Burnie, Maryland

TREE VARIETY:

Coconut and Alexander palms

Answer on page 33

John Mascaro is president of Turf-Tec International





11 am - Noon: Keynote —

Beyond the Field: Utilizing History, Technology and Mentorship to Define the Future of Sports Field Management — Mike Goatley, Ph.D., Abby McNeal, CSFM, Chad Price, CSFM, CFB, Leah Withrow, Travis Hogan

Noon - 1:15 p.m.: SFMA Annual Meeting and Lunch

1:30 - 6:30 p.m.: Trade Show 2 - 4:30 p.m.: Student Challenge

THURSDAY, JANUARY 25

6:30 - 8 a.m.: Continental Breakfast

- 8 10 a.m.: Conference Education Panel Discussions —
- Why Schools Should Invest in Athletic Fields: A CFO's Perspective Barry Gardner, Jamie Mehringer
- Ballfields on a Budget: Get More Bling for Less Cha-Ching *Travis Shaddox*, *Ph.D.*, *Ryan DeMay*, *CSFM*
- Hybrid Turf and What the Data Tells Us Kieran O'Donnell, John Sorochan, Ph.D., Kyley Dickson, Ph.D., Ian Craig
- Synthetic Turf Expert Panel Jason DeMink, CSFM, Cody Gustafson, Ryan Hillert, Wade Radde
- Future of Sports Field Management Panel *Drew Miller, Ryan Bjorn, Leah Withrow*



10 am - 1 p.m.: Trade Show & Lunch

Noon - 1 p.m.: Student Luncheon

12:45 - 5 p.m.: Half-Day Seminar on Wheels —

Visit Stetson University, the City of DeLand, and more. Transportation provided. Additional fee required.

- 1:30 3 p.m.: Conference Education (Repeat Sessions) —
- Parks and Recreation: Situations Encountered in a Municipal Setting *Derek Hollanitsch*
- Keeping Tools in the Toolbox: How to Talk About Pesticides *Megan Provost*
- Let's Talk About Mental Health Lisa Goatley, MS, LPC, Jason Bowers, CSFM, Willis Coulson

3:15 - 4:15 p.m. (new day/time): Chapter Officers

Training — Chapter board members and staff are invited to a panel discussion on leadership/ management formats, challenges they face, and how they have overcome obstacles.

6:30 - 7:30 p.m.: Pre-Banquet Reception

7:30 - 10 p.m.: Awards Banquet

Note: Conference Education will continue for four weeks post-conference via webinar: January 30 - February. 20. These will consist of eight virtual sessions included with a full conference registration! Visit SportsFieldManagement. org/Conference for more information.





GENERAL SESSION

Expert Baseball Panel: Player Perspectives, Special Events, Rule Changes, and More!

SFMA has assembled a panel of experts bringing many years of experience and expertise in this area. The panel will discuss how baseball has changed over the years, insight into player perspective, workplace challenges and where it is headed in the future for the sports field manager. Panelists include:

- Phil Bradley Former Major League Baseball player for the Mariners, Phillies, Orioles and White Sox. Bradley was an American League All-Star in 1985, and spent a season with the Yomiuri Giants in Japan before retiring in 1991. He currently serves as a special assistant for international and domestic player operations.
 - Dan Kiermaier Head groundskeeper, Chicago Cubs
- Ryan Woodley Senior director of grounds, Milwaukee Brewers
- Matt Brown Director of field operations, Pittsburgh Pirates

KEYNOTE ADDRESS

Beyond the Field: Utilizing History, Technology and Mentorship to Define the Future of Sports Field Management

This presentation includes an expert panel with diverse experiences to highlight the importance of understanding how historical aspects, new technology and mentorship can shape the landscape of sports field management, taking it above and beyond. Learning outcomes will include understanding the history of the industry, gaining knowledge on new technologies and its effects, and learning the benefits of participating in a mentorship program. Panelists include:

- Mike Goatley, Ph.D. Turfgrass specialist, Virginia Tech School of Plant and Environmental Sciences
 - Chad Price President, Carolina Green Corp.
 - Abby McNeal Parks superintendent, City of Louisville
 - Leah Withrow Head groundskeeper, Reno Aces
 - Travis Hogan Head groundskeeper, Kansas City Chiefs

CEU

CEUs available at the 2024 SFMA Conference include:

- SFMA 1.5 CEU credits
- ASBA 1 CEU for 1 hour of education, 1.5 CEUs for 1.5 hours of education, 2 CEUs for 2 hours of education, and 3.5 CEUs for the Pre-Conference session.
 - PGMS 1.5 CEU credits per day
- NRPA Attendees are eligible to submit the sessions attended for possible CEU equivalency
 - NALP 1 CEU per hour of education
- GCSAA 1 CEU for attending (attendees must submit session approval code) 999-25024-33120
- State of FL Pest Certification 1 CEU per educational session attended (certificate will have sessions attended and they submit this to FL for approval in their database)
- State of GA Pest Certification 3 credit hours for category 24-Ornamental Turf (must submit approval sheet)
- IA The following sessions are approved for a total of 3.5 CEUs (attendees must submit session

approval code) IA certified professionals may self-report the CEUs in their IA profile after they attended the conference. We will include the webinars in the IA preapproved training activities can be found on IA's website under "Maintain Your Certification" > "Earn CEUs" > "Download preapproved CEU courses."

- ► Turfgrass Irrigation: Water Quality, Quantity, and Lack Thereof Marco Schiavon, Ph.D. (Code: IA01241-1A)
- ► Total Toolbox Troubleshooting for Irrigation: Sights, Sounds, Shovels and Circuits — Brad Jakubowski and Matt Neri (Code: IA01241-1.5A)
- ► Take the Million Gallon Challenge Brad Jakubowski and Matt Neri (Code: IA01241-1B)

SAFE EVENTS

The foundation for Safer Athletic Fields for Everyone (SAFE), SFMA's charity, will host three exciting events as part of the 2024 conference in Daytona Beach. SAFE is thrilled to bring back the golf tournament after a taking a









year off in chilly Salt Lake City. The tournament will take place at the LPGA International Golf Course from 7 a.m. - 5 p.m. Monday, January 22, 2024. The price is \$140 per golfer, and you can join as a team of four or sign up as a single and SFMA will place you on a team.

After a wonderfully fun and successful first year, SFMA is bringing back the Cornhole Tournament. Cornhole will take place on Monday, January 22, 2024 from 10 a.m. – 1 p.m. The price is \$50 per player and there will be teams of two.

On Monday evening from 6 - 9 p.m. is the SAFE Bowling Tournament at GameTime Daytona Beach. The price is \$75 each and there will be teams of 5. Attendees can sign up as a team or be placed on a team.

STUDENT CHALLENGE

The SFMA Student Challenge is presented in partnership with the SAFE Foundation, Founding Partner Hunter Industries, and supporting sponsor Ewing. Each year, students from 2-year and 4-year colleges and universities throughout the country compete in an exam that challenges knowledge in the sports field management industry. The winning teams receive a cash award, a plaque and medallions for each team member. The prize money benefits the institution's turfgrass program and creates opportunities for students pursuing a career in sports field management. The study guide for the 2024 SFMA Student Collegiate Challenge is available online. Be sure to thoroughly review the study guide in preparation for the exam. The 2024 contest will take place Wednesday, January 24, from 2 - 4:30 p.m. at the SFMA Conference and Exhibition in Daytona Beach, Florida. A maximum of four undergraduates can compete on a team and must declare if they are representing a two-year or four-year institution. Competitors receive complimentary conference registration. You must be an SFMA member to participate. All Student Challenge competitors are REQUIRED to register online before December 15. No paper registration forms will be accepted.

AIR TRAVEL

Daytona Beach is served by two airports.

- Daytona Beach International (DAB) 5 miles from the host hotel
- Orlando International Airport (MCO) 70 miles from the host hotel

HOTEL INFORMATION

Hilton Daytona Beach Oceanfront Resort 100 North Atlantic Avenue Daytona Beach, FL 32118

\$199 per night

800-HILTONS or 386-254-8200 (group code STMA24) Rate available until December 30, 2023 or until room block is filled.

CONVENTION CENTER

Ocean Center Daytona Beach 101 North Atlantic Avenue Daytona Beach, FL 32118

EXHIBITION HOURS

Wednesday, January 24: 1:30 - 6:30 p.m. Thursday, January 25: 10 a.m. - 1 p.m.

ATTIRE

Business casual (slacks and a collared shirt for men and comparable attire for women) is the preferred attire. Coat and tie are requested for the awards banquet.

REGISTRATION INFORMATION

Registration opened October 16, 2023.

Take advantage of the exclusive early registration savings! Discounted rates are only available online through December 15!

On-site Registration Hours

Sunday, January 21: 6:30 - 9 p.m. Monday, January 22: 6:30 a.m. - 5 p.m. Tuesday, January 23: 7 a.m. - 5 p.m. Wednesday, January 24: 7 a.m. - 5 p.m. Thursday, January 25: 7 a.m. - Noon

Full Conference Registration Rates:

(Includes all education sessions, welcome reception, trade show, awards banquet, and all meals provided during the conference).

	Online Early Bird	Online after 12/15
SFMA NATIONAL MEMBER	\$475	\$550
SFMA NATIONAL MEMBER Reduced rate for second member from same facility (must register all facility members together to receive reduced rate)	\$425	\$500
NON-MEMBER (OR CHAPTER-ONLY MEMBER)	\$625	\$625

- Any registration member, or non-member not completed online (submitted by mail/fax) \$625
- Any registration after 01/12/2024 will be at the onsite registration rate of \$700

Visit SportsFieldManagement.org/Conference to register. See student rates, one-day packages, tradeshow-only, and optional activities. **SFM**

The Fast Track to Fun

What to do while in Daytona Beach for SFMA Conference



Photo courtesy Daytona International Speedway and Daytona Beach Area CVB. All other photos courtesy Daytona Beach Area Convention and Visitors Bureau.

Get ready to soak in the warm Florida sunshine in Daytona Beach, Florida — host city for the 2024 SFMA Conference and Exhibition. With its fun atmosphere and its close proximity to dining and entertainment, Daytona Beach is an ideal warm-weather destination. Satisfy your craving for salt air by grabbing a quick bite on the oceanfront. With 23 miles of Atlantic

shoreline, the Daytona Beach area has some of the most accessible beaches in Florida. More adventurous visitors can get out on the water with fishing, boating, paddleboarding, kayaking or sailing; while fans of the links can take their pick from more than 20 golf courses, including the 36-hole LPGA International and a pair of courses on the Florida Historic Golf Trail.

BEACHES

The best way to stay up to date with everything beach related is to download the Volusia Beaches app, available for free on Google Play on Android and the App Store on iOS. The app provides real-time updates on the status of beach ramps and staffed lifeguard towers, as well as beach conditions, off-beach parking and more. For more information about area beaches, visit https://www.daytonabeach.com/things-to-do/beaches/



Daytona Beach Dunes at sunrise

ARTS AND CULTURE

At the Smithsonian-affiliated Museum of Arts and Sciences, guests can walk through galleries featuring everything from art to industry to prehistory, and then step out into the boardwalks of the 90-acre Tuscawilla Preserve. Dig into Daytona Beach's rich and colorful past at the Halifax Historical Museum. A walk through downtown Daytona Beach or Ormond Beach will take you through an abundance of art galleries and public art, with even more galleries, museums and history centers nearby. Visit The Charles and Linda Williams Children's Museum, which houses professionally designed interactive exhibits that demonstrate various principles of science.



Smithsonian-affiliated Museum of Arts and Sciences

FUN THINGS TO DO

■ Daytona International Speedway: Daytona
International Speedway has enduring appeal all year
for all ages! It doesn't have to be Speedweeks to get your
blood racing. And you don't have to be a race fan to get
spellbound by a Speedway Track Tour. It's a massive
multi-sports facility that leaves visitors in awe with
every visit. Take a 60-minute Speedway Tour or the VIP
Tour and discover what makes Daytona International
Speedway the World Center of Racing. While there, visit
the Motorsports Hall of Fame of America.



Motorsports Hall of Fame of America

■ Daytona Beach Boardwalk and Pier: The Daytona Beach Boardwalk is a combination of the Joyland Amusement Center, Mardi Gras Fun Center, Pizza King & Lisa's Gift Shop, all located right on the beach! This area entertainment center is south of Ocean Walk Shoppes and the Daytona Beach Bandshell.



Daytona Beach Oceanfront Bandshell

■ LPGA International — Hills Course & Jones

Course: LPGA International, the premier golf club of Daytona Beach, boasts 36 holes of world-class golf designed by Arthur Hills and Rees Jones, and both courses are great for all skill levels.

- Riverfront Esplanade: Spanning a mile of Intracoastal waterway, the Riverfront Esplanade is a premier gathering space and botanical garden in the heart of Daytona Beach. Composed of more than a mile of waterfront running trail with comfortable benches and swings overlooking the Halifax River.
- Jackie Robinson Ballpark and Statue: Relive history in this Minor League Baseball park where ground-breaking African American baseball player, Jackie Robinson, played in the first integrated Major League Baseball spring training game in 1946. The ballpark features a statue of Robinson, historical markers and a museum, and is home to the Daytona Tortugas, a Cincinnati Reds affiliated Minor League Baseball team.
- Daytona Lagoon Premier Water Park and Family Fun Entertainment Center: The Daytona Lagoon features 12 water rides, including the 54-foot-tall Kraken's

Revenge four-lane mat racer and the Shaka Half-Pipe 'pendulum slide,' a giant wave pool and lazy river.

- Sun Splash Park: Sun Splash Park is a state-of-theart 3,500-square-foot splash pad that features 42 water jets shooting water four to six feet in the air from a decorative play surface overlooking the Atlantic Ocean.
- Miniature golf: Enjoy numerous options for a round of mini golf among scenic streams and waterfalls. Each location has a different theme.
- Angell & Phelps Chocolate Factory: A must see for anyone with a sweet tooth. Visit the store to learn all about the history of this famous brand of chocolate.
- Daytona Beach Zipline Adventure: Enjoy a treetop adventure at Daytona Beach Zipline Adventure, up in the trees of Tuscawilla Park. The aerial adventure courses are deftly woven into the forest.
- One Daytona: This lifestyle and entertainment center is located across from the iconic Daytona International Speedway, and features a vibrant and growing mix of unique dining, shopping and entertainment experiences.
- Tanger Outlets: Shop more than 75 designers and brands in a relaxed, lush and modern oasis.



Jackie Robinson Ballpark



Ponce Inlet Lighthouse

PONCE INLET

Just a few short miles south of Daytona Beach, at the southernmost tip of the peninsula, is the off-the-beaten-path area of Ponce Inlet. Highlights of Ponce Inlet are as follows:

- The beach: Stretching nearly four miles to the mouth of the inlet, it's hard to resist the relaxing waters, white sands and spectacular sunrises and sunsets found along Ponce Inlet's beach.
- Ponce Inlet Lighthouse: The Ponce Inlet Lighthouse is one of the most well-preserved lighthouses in the country. Climb the 203 steps to the top for spectacular views of the Atlantic Ocean, as well as the Halifax River.
- Marine Science Center In Ponce Inlet: Experience firsthand how sea turtles and seabirds are being rescued and rehabilitated to one day be returned to the wild.
- Ponce Preserve: The Inlet's largest park features approximately 41 acres stretching from the Atlantic Ocean to the Halifax River. Sitting at the heart of the park is the Green Mound State Archaeological Site, as well as an ancient live oak tree estimated to be more than 350 years old.

- Ponce Inlet Watersports: Everything you need for great family fun including dolphin and manatee boat tours.
- **Dining:** Grab lunch or dinner at Off The Hook At Inlet Harbor and Down the Hatch Seafood Company.



Racings North Turn Bar and Grill at Ponce Inlet

ORMOND BEACH

The Ormond Beach Scenic Loop is a picturesque roadway that has become a favorite among locals and visitors. Twist and turn underneath the cathedral ceilings formed by live oak tress amid the native Florida wildlife and enjoy the beachfront glimpses and a refreshing sea breeze. Along the nearly 34-mile route, you'll pass a few historic sites, countless wild birds and miles upon miles of natural beauty dripping in Spanish moss.

- Tomoka State Park: Take a pit stop to stretch your legs at Tomoka State Park, where hiking trails, canoe and kayak rentals, picnic tables and wildlife await. The park protects a variety of wildlife habitats and endangered species, such as the West Indian manatee, and is a bird watcher's paradise with more 160 species sighted. Onsite you will find The Tomoka Outpost. Enjoy an ice-cold soda, snacks, beer/wine and their famous Cup-ah Cajun with a fantastic view!
- Ormond Memorial Art Museum & Garden: This museum showcases paintings, drawings, video, mixed media, photography and three-dimensional works of art. Adjacent to the museum are lush tropical gardens that offer a beautiful setting complete with gazebo and nature trails, fish ponds and fountains.
- The Casements: Formerly the winter home of multimillionaire John D. Rockefeller, The Casements now serves as the City of Ormond Beach's cultural center and museum containing art and historical exhibits.
- Andy Romano Beachfront Park: This four-acre park offers beach access, free off-beach parking, restrooms, splash pad, playground, shaded pavilion, concessions, grills and restrooms.



Kona Tiki Bar at Ormond Beach

DINING

Outdoor or waterfront dining is more popular than ever, and the Daytona Beach area has plenty of great options — from casual beachfront cafés and waterfront decks to fine dining under the stars. From traditional ethnic eateries to Asian fusion, and from fine dining to the finest burger, Daytona Beach is ready to

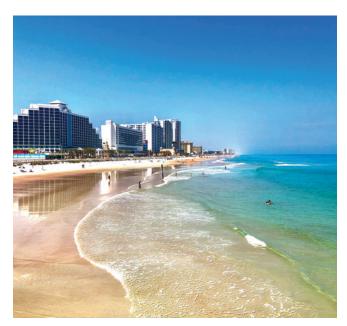


Bloody Marys at Lulu's Oceanside Grill at Ormond Beach

tickle your taste buds. An abundance of waterfront restaurants will satisfy your craving for fresh seafood, along with amazing views. The Daytona Beach Ale Trail highlights local craft beers and artisan spirits in a diverse string of establishments owned and operated by people who are passionate about their brews. So, whether you're craving grass-fed filet mignon, fresh seafood, Asian fusion fare, the local catch, fine dining or just a good old American cheeseburger, Daytona Beach has you covered. For more information about Daytona Beach food and beverage options, visit https://www.daytonabeach.com/food-and-drink/.



Daytona Beach Flea and Farmer's Market



Daytona Beach Atlantic coastline

SHOW YOUR BADGE

Daytona Beach area restaurants, shops and attractions are

ready to welcome you with special offers and discounts when you participate in the "Show Us Your Badge" program. Visit https://bit.ly/3HwMqwT for details (#MeetInDaytonaBeach #LoveDaytonaBeach).

WHAT TO WEAR

When you pack for a winter getaway in Daytona Beach, you can leave the parka and warm gloves at home. The weather here during the winter months is considerably milder than it is in much of the nation. Though you'll most likely have warm temps (the average January high is 68 degrees Fahrenheit), it's best to pack light layers. A T-shirt and cardigan will typically do the trick, but it's a good idea to toss in a warmer windbreaker in case you want to go for an evening stroll on the beach. And don't forget your bathing suit — even if you think the ocean is a bit brisk this time of year, many hotels have heated pools! SFM

 All information provided by the Daytona Beach Area Convention & Visitors Bureau.



Daytona Grande Oceanfront Hotel at Daytona Beach



Bright Ideas

Lighting considerations for sports fields and facilities



Photo courtesy of Rettler Corp.

By Mary Helen Sprecher

No offense to good fences, but good sports field lighting also makes good neighbors. In some cases, it makes much better neighbors.

"With today's solid state, direct lens lighting technology, spill, glare and glow (more commonly grouped together as light pollution) are significantly less problematic than yesterday's technology," said Charles Dawson of Tencate. "The old days of finding the local football game by following the glow in the sky have been eliminated."

There is no doubt that sports lighting has evolved over the years. Incandescent lights were used first on fields and were followed by floodlights. High-intensity discharge (HID), also known as metal halide, came along a few decades later, but it wasn't until after the millennium that pro sports began using LED.

When field managers consider updates to their overall facility, it is all but expected that they will look at their old HID lights — long the standard in many outdoor installations — with a critical eye and consider replacement with LED systems.

"When properly designed, LED systems reduce glare and spill by up to 95 percent over HID systems, while allowing superior uniformities and centerline lighting on the playing surfaces," said Dawson.

Another advantage of LED is its ability to be remotely controlled; many systems can be used via a mobile app that allows lights to be dimmed or shut off completely at a certain time. It is also far more energy efficient; some vendors tout the annual savings as 75% or more.

For those considering a new system, the following should be taken into account:

Design: Lighting systems should be designed in accordance with the facility. Lighting designs should conform to local building, electrical and safety codes. Other design considerations should include:

■ Energy efficiency: The fixture selection process should include an analysis of the energy efficiency to determine the most efficient light sources and fixtures. Lighting



Photo courtesy of Rettler Corp.



Photo courtesy of Robert Cohen Co., LLC

controls such as motion sensors, automated control systems and dimming of fixtures should be considered to reduce energy consumption.

- Fixture locations: Fixture locations should be determined to allow accessibility for maintenance and emergency equipment.
- Television or internet broadcast: If broadcasts will take place at a facility, it is best to consult with local broadcasters to define lighting requirements.
- Verification of light levels: After the installation of the fixtures, it is recommended that the lighting levels be measured on the playing surface and recorded. Remember that many sports (and even various skill levels within sports) will necessitate different amounts of light. Measurements will need to be taken with a calibrated light meter. Readings should be compared to the calculated values and adjustments made as needed to achieve the required light levels and uniformities.

LED is not equal to HID: Many field managers assume HID and LED design characteristics are interchangeable; however, they are not. Talk with a lighting contractor about the options.

Uniformity: "Uniformity is king when reviewing photometric (lighting layout) designs," said Dawson. "Uniformity is the smoothness of the light over the surface, and measures corresponding points of light to eliminate hots spots or dark spots. High-wattage fixtures are not a positive, especially on smaller fields. For example, if a baseball infield needs 5,000 watts of light to meet necessary light levels, installing two 2,500-watt fixtures or four 1,250-watt fixtures is not an optimum design strategy. By installing eight 600-watt fixtures, the design team is given more aiming angles to better distribute light."

Be strategic: "When exploring lighting, especially in complexes and smaller venues, lower-wattage fixtures that allow more aiming angles in the design create superior uniformity and lighting performance," added Dawson. "If a design is presented that offers low fixture counts with high-wattage fixtures, you immediately know uniformity will suffer due to limited lighting distribution points, and an outage on any single fixture will hamper the ability to continue activities at the facility. The well-versed manager should demand multiple lighting distribution points, which in turn guarantees maximum uniformities and performance."

Replacement of old poles is not necessary. Here's some good news, you don't necessarily need to tear down your poles or rip up your field.

"The best LED systems in the world can be installed on existing poles and cross arms, regardless of the previous supplier of the HID system," said Dawson. "These retrofits drastically reduce the upfront cost and allow a far better return on investment for the owner."

That is, however, assuming the current poles are in good shape; rust and other degradation can complicate installation. Consult with an electrical contractor to ascertain that there are no pre-existing problems.

Don't fall for internet ads touting cheap lighting systems:

While it is certainly possible to purchase equipment online — and often at bargain-basement prices — that equipment is often manufactured and shipped from outside the country and usually does not offer the buyer any customer support once the product arrives.

Keep in mind that inexpensive equipment may have limited functionality and low product manufacturing standards. This may lead to a need to have repairs done (at your cost) by a local electrical contractor, and ultimately to replace the whole system sooner rather than later. The wiser investment is made by purchasing a domestically manufactured sports-specific system that is backed by a reputable company with references from users who can speak to the customer service experience before, during and after installation.

While LED lighting does constitute an investment, cutting corners does not result in the best outcome. A good company will provide a quality system backed by a warranty and supported by sales staff that can answer questions.

And while you're thinking of cost: Remember to do a full evaluation of your needs and what you stand to save by investing in a new LED system. A life-cycle cost analysis can determine the effectiveness of a potential LED lighting retrofit, and should take into consideration capital costs, maintenance costs and operations costs.



Photo courtesy of Verde Design, Inc.

At the end of the day (literally), a good lighting system is one of the factors that lends itself to the overall experience at a facility, whether on the field or in the stands. It brightens up the field, and provides better visibility and a higher resolution for photos and videos. Additionally, it extends the playing day and allows any facility to host more games and create a better economic return for the owner.

No matter what the use of the field, however, it is essential to research various lighting vendors and check references prior to deciding upon any system. Ask questions, talk to colleagues and find out what they have to say about the systems they decided to purchase. Even better, go to a game and see it in action. It may be the deciding factor. But always do your research.

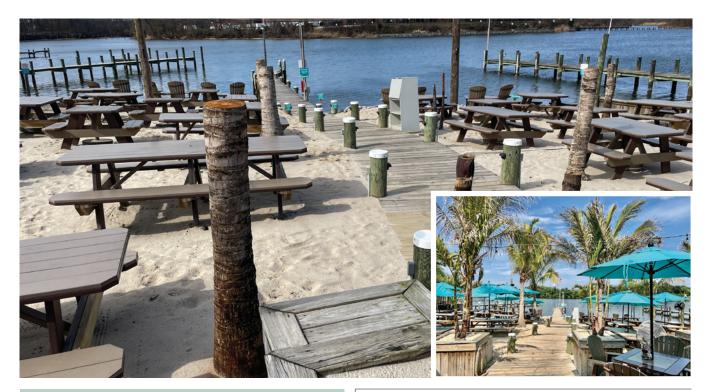
"The industry offers a variety of options and design characteristics in the LED market," said Dawson. "With a significant savings in energy cost and the elimination of costly HID lamp or ballast changes, the switch to LED can be a net positive on the owner's budget." **SFM**

Mary Helen Sprecher wrote this article on behalf of the American Sports Builders Association (ASBA). More information on design, construction, amenities and accessories can be found in the ASBA publication, Sports Fields: A Construction and Maintenance Manual. For more information, visit www.sportsbuilders.org.



Photo courtesy of Verde Design, Inc.

JOHN MASCARO'S PHOTO QUIZ



ANSWER

From page 17

I happened upon this tiki bar located outside of Baltimore in my quest to visit every tiki bar on earth. While doing a Google Map search, I was amazed to see photos of coconut palm trees in Maryland and figured it was worth investigating. When I arrived, I was horrified to find someone had stolen all the tops to the trees. Vandalism, I thought, perhaps? As it turns out, this bar's owner has close to 40 assorted palm trees trucked in from Florida each year. The coconut and Alexander palms are planted in the sand "beach," behind the restaurant, where patrons can enjoy them until winter arrives. The first year, they kept them alive as long as they could, but the trees started to look very sad and unhealthy. Now, they simply dead head the palms for the winter and replant them all in the spring. A sad ending for the trees, but they did have great crab cakes.

Photo by John Mascaro.

John Mascaro is president of Turf-Tec International

If you would like to submit a photograph for John Mascaro's Photo Quiz, please send a high-resolution digital photo to John Mascaro via email at john@turf-tec.com. If your photograph is selected, you will receive full credit. All photos submitted will become property of SportsField Management magazine and the Sports Field Management Association.



Extreme Weather Influences: On and Off the Field

By John C. Fech and Bradley R. Jakubowski

Wide fluctuations in moisture, temperature and wind patterns make small problems into big ones. A few manifestations of these include anthracnose, pythium blight and take all patch, billbug and white grub infestations, cankers in tree trunks, gaps in sprinkler system coverage, and desiccation of both turf and ornamentals. All of these become so much more severe when the weather hits hard and fast. Whether it's on the field or in the surrounding landscape, these influences are significant. Fortunately, there are some tried-and-true techniques that can lessen their impact.

WHAT'S EXTREME?

Extreme...really? These days? What's extreme? It used to be that extreme meant expanding the NCAA basketball playoffs from 32 to 64 teams and Elvis Presley's dancing on the Ed Sullivan show. Now, with the LIV and PGA tours joining up and the extreme number of entertainment streaming options compared to just a few years ago, the paradigm of "extreme" may have shifted a bit.

In the sports field management world, "extreme" could have several meanings. It could mean that changes and options in turf species/cultivars are possible now, whereas 20 years ago they were unheard of. Mowing heights and techniques are another example. The tolerance of turf and ornamental plants to various pathogens and insects is always on the minds of the plant breeders; and, as such, may lessen or magnify the damage from these pests, depending on how they are managed.

EXTREME IS STILL EXTREME. BUT WHAT DOES THAT LOOK LIKE?

For us to address extremes, we first need to establish or recall a baseline in management operations; for example, the average tolerance to winter cold and moisture for a given sports turf species or ornamental shrub. Bermudagrass and zoysiagrass are species that have seen more implementation on both sports turf facilities and golf







Considerations of right plant, right place is imperative for turf and ornamentals on sports facilities and campus grounds – especially in transition zones and when records indicate that certain plants thrive in some years and struggle in others. Photos by John Fech, UNL







Again, right plant, right place is imperative for turf and ornamental success.
Photos by John Fech, UNL

courses alike. When extremes in temperature, moisture and wind allow for it, these turfgrass varieties thrive; when they don't, they suffer or die outright. Ornamental shrubs such as camelia and Japanese holly are affected similarly.

In a classic sense, extremes — or the tolerance thereof — center around the preferred ranges for the healthy growth of turf and ornamentals and the degree of deviation from those influences (precipitation, temperature and wind). For the sports field manager, the bottom line is the comfort level that a person has with risking the loss of the plants due to unforeseen extremes in weather.

In addition to diseases and insect issues, extremes in weather can expand or minimize weed germination windows, especially with higher-than-average moisture and temperature. Dry and cool soils tend not to encourage germination and establishment of summer annuals, whereas warm and moist soils offer great conditions for their development. The consequence of greater weed pressure is the need for more intense management or intervention such as a second or third preemergence application for late-season summer annuals such as goosegrass or spurge in addition to foxtail and crabgrass and additional postemergence spot spraying to control broadleaves.

Weather extremes also pose the quandary of secondary vs. primary irrigation — the consideration of sprinkler systems being relied on as the sole source of moisture for plants during times when natural rainfall doesn't fall. During periods of three to four weeks of little to no precipitation from Mother Nature, the flaws in sprinklers show up; problems such as lack of head to head coverage, hot spots where very little water is delivered, inadequate pressure, bent risers, tree roots squeezing main lines and laterals, shrubs that have grown to be in the way of the water pattern, leaking valves, risers that don't rise above the height of cut and so on. When it starts raining again, these problems are still there, they are just masked.

The primary cultural practice of turf aeration is also influenced during weather extremes. When temperatures and winds are on the high side, the concern is that soil moisture will be depleted too quickly after aeration, causing desiccation. On the low side, there is greater reliance on the aforementioned flawed sprinkler system to create conducive conditions to adequately pull cores and punch holes.

An additional main issue with both herbaceous and woody ornamental plants is the long-term nature of damage from weather extremes. Though commonly overlooked, severe drought usually has a two- to three-year

effect on trees, shrubs, perennials and groundcovers. The extremes in soil temperature and moisture cause roots to die that are not quickly replaced, causing these plants to produce both initial and delayed responses. The most often seen symptom is an evergreen tree that turns off color due to dry soils the previous spring and summer, even though in the current year adequate soil moisture and moderate temperatures prevail.

WHAT CAN BE DONE?

MONITOR WEATHER TRENDS

Having an idea of what types of extreme weather may be coming is a good way to help yourself anticipate and mitigate the effects of extreme weather stressors. The Climate Prediction Center (CPC) at the National Weather Service (https://www.cpc.ncep.noaa.gov/) is a great place to start. The CPC provides graphical and numerical data such as the US Monthly Drought Outlook (Figure 1), the Temperature Outlook (Figure 2) and the Precipitation Outlook (Figure 3) to help you get a glance of what may be ahead as 6-8-day, 8-14-day and 3-4-week outlooks. The temperature and precipitation outlooks can tell you if temperatures and rainfall may be higher or lower than normal and help you fine-tune your extreme weather/trouble management strategy. Learning more about El Nino and La Nina can also be helpful to help plan for longer periods of time. Much of the crazy weather changes of 2023 can be attributed to the shifting from multi-year occurrence of La Nina to a mild El Nino as the year progressed.

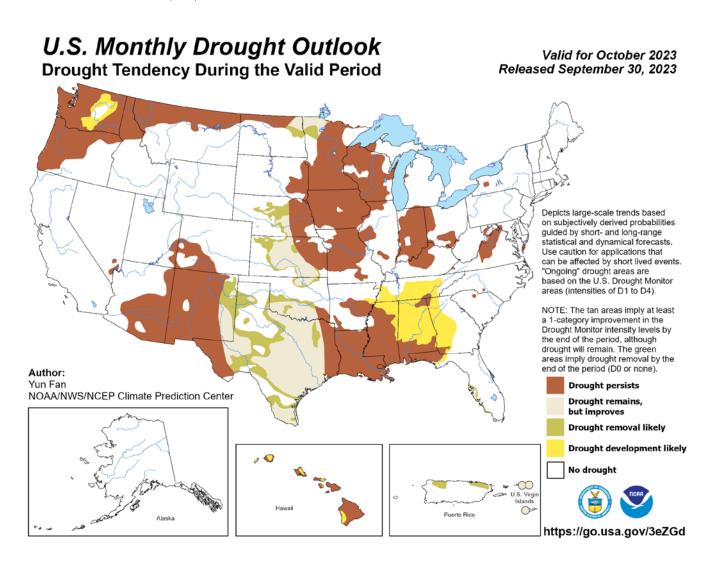


Figure 1. Figure provided by Bradley R. Jakubowski

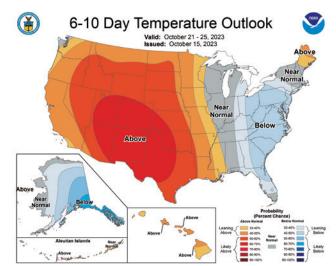


Figure 2

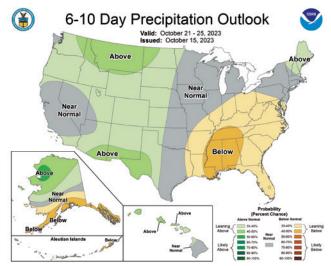


Figure 3



Figures provided by Bradley R. Jakubowski

BEST MANAGEMENT PRACTICES

Best management practices for turf and ornamentals have been developed via research and carefully documented observations over a long period of time. They include thatch management, proper planting and pruning techniques, irrigation scheduling, species selection, right plant, right place, timely aeration and balanced fertilization.

IRRIGATION AUDIT

Extreme weather fluctuations can be lessened though uniform application of water. When dry and wet spots exist due to non-uniform irrigation, weather extremes become more pronounced. Increasing the distribution uniformity from a low percentage to high creates more robust plants that are more resilient to drastic changes and extremes.

SCOUTING

Regular inspections for diseases and insects put the sports field manager ahead of the curve in terms of being able to spot an infection or infestation on the rise. Assigning staff to "look and see" on a consistent basis will provide the opportunity to respond quickly to a pest issue and devise an intervention plan if necessary.

STAY FOCUSED, STAY IN YOUR LANE

There's something to be said for the tried and true. Knowing where marginal plants work, especially in transition zones, and where they don't is really helpful in managing weather extremes.

EXPERIMENT, BUT IN A CALCULATED MANNER

A tad bit contrary to the preceding paragraph is calculated experimentation, the embodiment of the phrase "nothing ventured, nothing gained." When trying new things, it pays to ask some of your colleagues at other facilities what their experience has been with a new piece of equipment, certain plants you've been wondering about or hearing about, and reflecting on recent observations that don't mesh with what has been the norm.

STAY PLUGGED IN

Go to conferences, monitor social media, talk to product vendors. It's pretty rare that a brand-new technique or strategy arises out of thin air. Most



Gaps in sprinkler pattern coverage are often the result of extreme weather influences. An irrigation audit will help identify these areas before they show heavy-duty symptoms. Photos by John Fech, UNL

innovations and useful applications are adaptations of existing technology. Successful managers are willing to listen and be available to learn. **SFM**

John C. Fech is a horticulturist with the University of Nebraska-Lincoln and certified arborist with the International Society of Arboriculture. The author of two books and more than 400 popular and trade journal articles, he focuses his time on teaching effective landscape maintenance techniques, water conservation, diagnosing turf and ornamental problems, and encouraging effective bilingual communication in the green industry.

Bradley R. Jakubowski is a turfgrass and irrigation instructor with Penn State University. He is a certified irrigation technician with the Irrigation Association and is an author and presenter covering multiple management areas within the turfgrass industry. He focuses his time on teaching best irrigation practices and troubleshooting, weather-based management decisions, soils and plant nutrition.



Regular scouting for weeds and other pests will help with extreme weather influences. Photo by Brad Jakubowski, Penn St.



Scouting will provide the opportunity to respond quickly to an issue and intervene. Photo by John Fech, UNL



March 1986



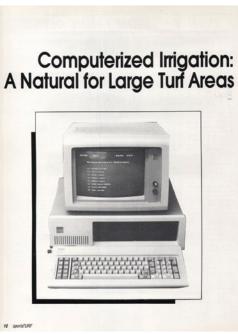
In this retrospective, we examine historic issues of SportsTurf magazine, predecessor to SportsField Management magazine. In this edition of "Accessing the Archives," we look back at the March 1986 issue of SportsTurf — and this one definitely shows its age.

The cover features a desktop computer sitting in an outdoor landscape setting, along with a dot-matrix printer, floppy disks, and two binders labeled "Landscape Program." The headline is "Computerized Irrigation: A Natural for Large Areas."

The corresponding article within the issue is full of great insight, such as "The world is now well into the age of computers, and the sports turf industry is no exception. Every sports turf manager with a large operation should seriously consider the various uses of this space-age tool."

The article went on to state, "Software is a computer program written by a technician, but in a language that the user understands. It is then placed in the computer, either via a floppy disk (which looks like a mini record) or directly into the memory banks of the computer."

The article highlighted the computers that were available at the time to manage irrigation systems — including dedicated systems specifically (and solely) for irrigation system operation.



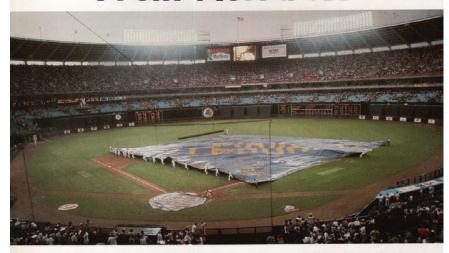


Elsewhere in the issue, the editor's column outlined how the Sports Turf Managers Association and the National Sports Turf Council were using demonstration fields to show that "good fields are possible even with small budgets."

The March 1986 issue also included an article about how the Atlanta Braves transitioned from a Motocross event to baseball in "just four weeks."

"Today we have many tools we didn't have just ten years ago. We can totally renovate the field and be ready for an opener in just

Countdown to Opening Day: Atlanta Rebounds From Motocross



pening day for Major League Base-ball is a national event. On April 8, every Major League team must be ready to compete and have its roster pared down to the best players for the year

As coaches are busy molding their players into shape at training camps in Florida, Texas, California and Arizona, turf managers at major stadiums across the country busy getting their turf into condition for the

In Atlanta, the Braves' grounds superintendent Sam Newpher has just four weeks to turn his field, buried under mountains of dirt for Motocross, into a Major League qual-ity baseball field. The job requires full cooperation from the Atlanta/Fulton County Stadi-

um Authority and all suppliers.
The stadium, which also hosts the Falcons. the Peach and Freedom Bowls, concerts and Motocross races, was completed in 1965. "The field's original subsurface drainage system hasn't worked very well for years," says Newpher, National television audiences saw the effects of heavy rains 16 sportsTURF

on Atlanta/Fulton Country Stadium in 1982 on Attantar-union Country Stacium in 1992. when the Braves were in contention for the Western Division Championship with the Los Angeles Dodgers. Those games had to be played despite heavy rains," Newpher points out. "We brought in a helicopter to help dry the field for one of the games. It's a credit to Bebart Lobuson, the aeros, what trained to Robert Johnson, the person who trained me and still consults for the team, that he was able to keep the field playable with marginal drainage for so many years."

"If you look back, there is no comp son between the way fields were built in 1966 and the way they are today," says Newpher. "The same is true for the majority of natural fields in professional sports stadiums across the country. Prescription Athletic Turf (PAT) wasn't even utilized until 1975."

"Today we have many tools we didn't have just ten years ago. We can totally renovate the field and be ready for an opener in just over four weeks. But, four weeks is all we have, so our new tools have to fit this time frame." Neurobar states.

frame," Newpher states. Newpher's schedule leaves little room for

error. After the Falcons wrap up the son, the stadium hosts the Peach Bowl, a college bowl game held each New Year's Eve. Two weeks later the stadium helps kick off the Martin Luther King Celebration with the Freedom Bowl, a two-year-old college bowl game. In mid-February, mountains of dirt are brought in and dumped onto the field for Motocross. By the time the field is cleared and new sod is installed half of March is gone. Newpher has less than four weeks before the Braves play their home opener.

The landscape contractor and the sod producer have to work closely with the Stadium Authority and Newpher to make everything snap into place. Fortunately, when Newpher rose from assistant to head grounds superintendent four years ago, he had two talented suppliers, Gray Contracting and Southern Turf Nurseries.

Gray had been working closely with the stadium since it was built, supplying basepath and mound mixes and topdress-ing. He is one of the few landscape con-

Getting Serious About **Annual Bluegrass**







over four weeks. But four weeks is all we have, so our new tools have to fit this time frame," said Braves' grounds superintendent Sam Newpher.

Another article in this issue, "Getting Serious About Annual Bluegrass," addressed how golf course superintendents in Idaho were handling Poa annua in Kentucky bluegrass fairways. "When fairways and greens are overwatered, Poa thrives," said Bob Lee, superintendent at Stoneridge Golf Course. "It's easy to run up a \$5,000 yearly bill just to treat for Fusarium patch disease. The lush turf also encourages Typhula snow mold disease and, of course, winter dessication."

An article on "Springtime First Aid for Bermudagrass," stated, "Late winter arid early spring are especially

important times to manage bermudagrass. The ravages of winter weather and use become visible at this time. Quick action is needed to bring the bermudagrass back to health for spring and summer sports." SFM

All content for this section is pulled from the SportsTurf/SportsField Management archives, an ongoing cooperative project of EPG Brand Acceleration, SFMA and the Michigan State University Libraries (https://sturf.lib.msu.edu/index.html).

If you have any personal stories/anecdotes about the early days of the magazine, please contact John Kmitta at jkmitta@epgacceleration.com or 763-383-4405.

The following sports field management industry photos are pulled from a variety of social media feeds.

If you would like your photo to be featured in future editions, tag us @sportsfield_mag.

Scan the QR code for links to all of our feeds.





Millie supervising bullpen repairs today.



@jkkruse

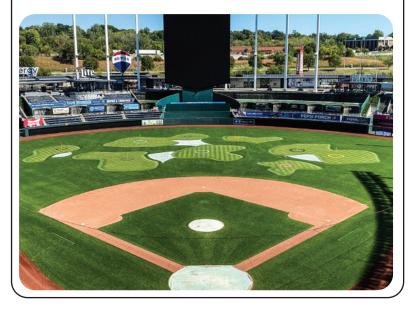
Healthy soils = healthy grass roots. Improving soil conditions on athletic fields helps grass plants develop deeper, stronger root systems. This leads to more durable, resilient playing surfaces. #HealthySoils #SportsTurf #SportsFieldTips



\mathbb{X}

@kcgrassman

Bill Irving @WolfCreekTurf, how did we do?? We got our greens down to 1/2-inch, Fringe at 3/4 and rough at 2 inches. Will that play??





@dirtyGkeepe

This is the look of "same page."



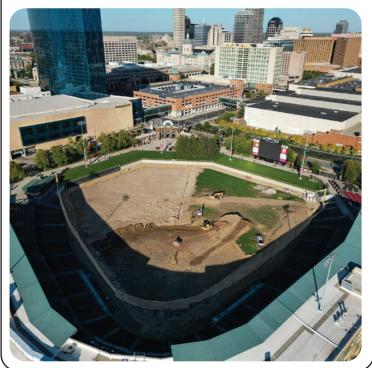




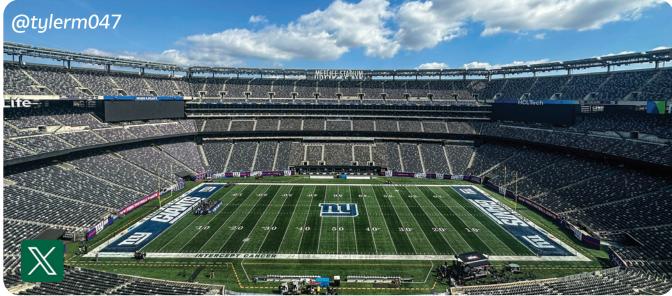


@INDYINDIANSTURF

More subgrade exposed. Once we get the subgrade at the proper grade, we can start rebuilding. I can already smell the green grass in the spring #AtTheVic





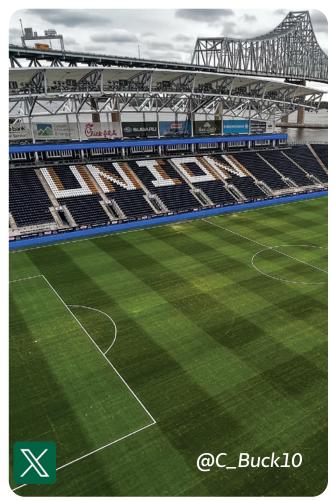
















Echo adds new products

At its recent Media Summit, Echo announced and showed 21 new products. The line covers a range of handheld tools and shows the company's commitment to both battery power and gas power sources. Here is a brief overview of each new of the new tools.

TRIMMERS, EDGERS, POWERHEADS

- DPAS-2600: This X Series commercial-grade attachment-capable powerhead allows for fast, easy attachment changes and is compatible with all 16 attachments in the Echo Pro Attachment Series. This new battery-powered tool is similar to the gas-powered PAS-2620.
- DPPF-2100: This battery-powered pruner uses the DPAS-2100 powerhead, and an 80TXL chain for improved cutting speed and reduced vibration.
- DPPT-2600H: The batterypowered pruner has an extendable reach, giving it an overall length from 107 to 146 inches.
- DPE-2600: This batterypowered stick edger uses an aluminum debris shield, same as the PE-2620 pro stick edger. Its 2:1 gear case converts the high-speed motor to improved cutting power at the lower end.



■ DHC-2200 and DHC-2800:

Echo has two new dual-sided battery-powered hedge trimmers, in 22- and 28-inch lengths. Each has a rotating rear handle for vertical cutting.

- DHCS-2800 and DCHS-3400: Two single-sided trimmers join the lineup, with 28- and 34-inch lengths. These tools feature the same blade quality as commercial gas units and have three sharpened sides on all teeth.
- DPE-2100: This battery-powered, curved-shaft edger is designed for residential use. When using a 2.5Ah battery, users should get 40 minutes of runtime.
- DHCA-2600: This articulating pole trimmer features 135-degree rotation. The battery-powered tool runs Echo's 56v batteries.

BLOWERS

- PB-7910T and PB-7910H: This gas-powered backpack blower runs on a 79cc two stroke that helps push 835 cfm and has a convenient pleated paper side-mounted air filter. Users can choose a hip-mounted or tube-mounted throttle.
- DPB-5800T: The industry's only three-port battery-powered backpack blower delivers up to 795 cfm of air

volume with speeds up to 195 mph. Running on two 5 Ah batteries, it will run for 30 minutes. Using three batteries, the runtime is 80 minutes.

■ PB-5810T and PB-5810H: Featuring an all-new 59.7cc engine, the PB-5810 blower provides 700 cubic feet of air volume at air speeds of 200 mph.

CHAIN SAWS

- DHCS-2500 TN: Designed for reduced vibration with improved cutting performance, this saw is essentially the same product as the DCS-2500T but with a new and narrower 80TXL chain for improved cutting efficiency.
- CS-3410: Using a high-power 34.4cc 2-stroke engine, the CS-3410 provides 1.7 horsepower.

BATTERIES AND CHARGERS

- LC-56V5A2: The new dual port rapid charger has an optional wall mount and includes USB-A and USB-C ports for charging mobile devices. In can charge one 2.5 Ah battery in 38 minutes, and two 5.0 Ah batteries in 60 minutes.
- LC-56V1A: The new top-mount charger charges one 56v battery at a 1-amp charge rate, making it ideal for overnight charging. It features a two-color LED charge indicator and 6-foot power cord.
- LBP-56V400: The new 56V 8.0AH battery enables extended runtimes. It features an on-board LED charge gauge and rubber over-molding for increased durability.

ROBOTIC TECHNOLOGY

Echo added RTK GPS technology to its existing robotic turf mower, a professional tool designed to cut large areas. The mower has a larger mowing capacity for faster maintenance of sports fields and other large areas. The real-time kinematic installation helps the robot navigate with an accuracy of around 2 to 3 cm, allowing it to mow in a pattern with a minimal overlap.



Exmark Vertex X-Series and E-Series

Exmark unveiled its complete 2024 line of Vertex stand-on commercial mowers. Larger Vertex X-Series and compact Vertex E-Series machines have been added to the line. The new models join Exmark's existing Vertex S-Series and electric Vertex V-Series models.

VERTEX X-SERIES

The new Vertex X-Series raises the bar for Exmark stand-on mower power and productivitu. thanks to an available 72inch UltraCut Series 6 cutting deck. It enables professionals to mow more than 7 acres per hour and do it all dau thanks to 14 gallons of fuel capacity. With Kawasaki FX1000 engines, Vertex X-Series delivers the power to



finish jobs faster, with a better quality of cut thanks to Exmark's UltraCut Series 6 cutting decks. In addition to the 72-inch model, Exmark also offers Vertex X-Series with 52- or 60-inch cutting decks.

The wide, stable design of the Vertex X-Series features 24-inch drive tires for increased traction, reduced turf compaction and increased ride quality. The operator-focused control center optimizes operator control and comfort, with a bolstered operator pad and suspended operator platform that's located low and centered between the rear wheels.

VERTEX E-SERIES

Exmark's new Vertex E-Series compact stand-on mower is a more productive option for gated back yards and other areas with limited access, when compared with a walk-behind mower. Available with 32- or 36-inch UltraCut Series 3 cutting decks, Vertex E-Series is ideal for maintaining small- to mid-sized properties. It provides next-level versatility, maneuverability, and quality of cut.

Powered by an electric start, twin-cylinder Kawasaki FS600V commercial engine, Vertex E-Series models use HydroGear pumps and Parker wheel motors to deliver ground speeds of up to 7.5mph forward. The dualaction controls provide quick, responsive control in any conditions, and the single-point cut height adjustment system quickly and accurately sets deck height from 1.0-to 4.5-inches, in .25-inch increments.

John Deere 2024 QuikTrak mowers

John Deere debuted its new QuikTrak mowers for 2024.

The 2024 E Series models, the Q810E and Q820E, boast new features, including serviceability improvements. Helping to maximize uptime, the E Series models feature a single power takeoff belt design and aluminum commercial mowing spindles that make changing mower blades simple and fast. These models also include high-lift blades and a new belt cover design for easier cleanout. In addition, the Q820E QuikTrak mower now boasts a 23.5-hp. engine, increasing mowing power.

The new Q800 M and R Series models, including the Q820M, Q850M, Q850R and Q865R EFI machines, have been transformed from previous generations to amplify speed, comfort and power. Now featuring a wider horsepower range, the M and R Series mowers offer 27-hp. carb and 34.5-hp. EFI options.

The M and R Series feature the 7-Iron PRO decks in 48-, 54- and 60-inch sizes. Anti-scalp wheels on the decks' front and back edges help with uneven terrain, while the trim side bumper helps protect property and the mower deck. The height of cut features improved access and visibility during height selection, providing quick changes from 1.5- to 5-inch cut heights. In addition, the new spindle covers were designed to help ease cleanout, getting contractors back on the job sooner.

The new M and R Series machines provide improved traction in challenging conditions due to the even weight distribution of the new low-profile fuel tanks, which are positioned over the drive tires on both sides of the mower. The optimized weight distribution helps stabilize the machine and provides better traction for mowing along slopes. On level ground, the even weight distribution also minimizes damage to the turf.

Engineered with serviceability in mind, the new design allows easy access to complete maintenance and repairs. Keeping operator comfort top of mind, the new operator station featured on the M and R Series models provides improved access to controls, while keeping them protected, and provides a cockpit-type feel. **SFM**













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4



SFMA Affiliated Chapters Contact Information

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Colorado Sports Turf Managers Association: www.cstma.org

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John Mascaro, john@turf-tec.com

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Gateway Sports Field Management Association: gatewaystma.squarespace.com

Georgia Sports Turf Managers Association: : www.georgiastma.org

Greater L.A. Basin Chapter of the Sports Turf Managers Association:

www.sfmalabasin.com

Illinois Chapter STMA: www.ILSTMA.org

Intermountain Chapter of the Sports Turf Managers Association:

http://imstma.blogspot.com

Indiana: Contact Clayton Dame, Claytondame@hotmail.com or Brian Bornino, bornino@purdue.edu or Contact Joey Stevenson, jstevenson@indyindians.com

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Keystone Athletic Field Managers Org. (KAFMO/STMA): www.kafmo.org

Mid-Atlantic STMA: www.mastma.org

Michigan Sports Turf Managers

Association (MiSTMA): www.mistma.org

Minnesota Parks and Sports Field
Management Association: www.mpsfma.org

MO-KAN Sports Turf Managers

Association: www.mokanstma.com

Nebraska SFMA

https://nebraskaturfgrass.com/nesfma

New England STMA (NESTMA): www.nestma.org

Sports Field Managara

Sports Field Managers Association of New Jersey: www.sfmanj.org

North Carolina Chapter of STMA: www.ncsportsturf.org

Northern California STMA:

www.norcalstma.org

Ohio Sports Turf Managers
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www.oregonsportsturfmanagers.org oregonstma@gmail.com

Ozarks STMA: www.ozarksstma.org

Pacific Northwest Sports Turf Managers
Association: www.pnwstma.org

Southern California SFMA:

www.socalsfma.com

South Carolina Chapter of STMA: www.scsfma.org

Tennessee Valley Sports Field Management Association (TVSFMA): www.tvstma.org

Texas Sports Turf Managers Association: www.txstma.org

Virginia Sports Turf Managers Association: www.vstma.org

Wisconsin Sports Turf Managers Association: www.wstma.org

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Why All the Scalping?

We do not use our football field much after the fall season, so we decided to not overseed it this year so we can better tackle some problem winter weeds. My question is not about the weeds, but why our bermudagrass cuts so poorly late in the fall? We have used the same cutting height all year, but once we got into September it seems to scalp. Is there something we should change so that it cuts more uniformly without scalping?

This is actually a pretty common question I get from turfgrass managers and homeowners who have bermudagrass. What has changed is the quantity and quality of your sunlight. Solar radiation, the energy from the sun, fuels the photosynthesis process, which converts carbon dioxide into sugars and carbohydrates that are used by the plant. Bermudagrass loves long days with lots of light and heat. Starting in late summer to early fall, the relationship of earth to the sun limits the light and heat it needs for heathy growth.

Solar radiation comes in three forms — ultraviolet, visible and infrared. Most of the light that reaches the earth is infrared and visible light. Infrared light is largely responsible for warming Earth's surface, whereas visible light (known as photosynthetic active radiation or PAR) is the light wavelength range that is best for photosynthesis.

Solar radiation is the greatest when the sun is directly perpendicular to the Earth's surface, such as midday in summer. When the sun's rays hit the Earth at an angle, the sun's rays are spread out over a larger area, so there is less energy per unit area. The sun's angle increases the amount of ozone through which the light has to pass. This angle does not only change with the season, but also changes during the day. Solar radiation in the morning and evening has to pass through more of the atmosphere, which reduces its irradiance. Also, cloud cover will scatter the sun's rays, decreasing irradiance. This is why we sometimes see reduced mowing quality after extended cloudy weather, even in the summer.

Solar irradiance is the intensity of solar radiation per unit area. As solar irradiance increases, plants experience higher rates of photosynthesis. It is like the difference between a 20-watt light bulb and a 100-watt light bulb: both produce light, but the brightness and intensity are different. The greater irradiance over time also causes the Earth to warm due to conduction and convection. In the presence of visible light, increased temperature speeds up photosynthesis — thus heat plays an important role in growing dense, healthy turfgrass.

With reduced light intensity and shorter day length in the fall, the bermudagrass will begin to increase internode length and reduce tillering. The individual plants are using their limited resources to grow taller so that the plant may better intercept the limited sunlight that is available. Over time, the overall result is a thinner stand of turfgrass with longer, thinner leaves. That is why the turfgrass will scalp even though you have continued to use the same mowing interval and height of cut.

You have several options to better manage this situation.

- 1. Since we know there is a relationship between light and temperature, grow covers can increase heat in the canopy therefore increasing photosynthesis efficiency.
- 2. Reduce the plant from elongating. Plant growth regulators have shown efficacy in reducing vertical growth while concentrating chlorophyll necessary for more efficient photosynthesis.
- 3. Increase light levels. This can be anything from reducing tree shade around the edge of open fields to using grow lights to supplement natural light. The more light that can be added, the better.
- 4. Reduce your mowing interval while increasing the height-of-cut as light levels decrease in the fall. This can be challenging to manage, but can be effective for early fall.

If it still scalps to an unacceptable level, using a turfgrass colorant can aid in masking the symptoms. **SFM**



Grady Miller, Ph.D.

Professor and Extension Turf Specialist North Carolina State University

Questions?

Send them to Grady Miller at North Carolina State University, Box 7620, Raleigh, NC 27695-7620, or e-mail grady_miller@ncsu.edu

Or, send your question to Pamela Sherratt at 202 Kottman Hall, 2001 Coffey Road, Columbus, OH 43210 or sherratt.1@osu.edu



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