

# Cover All *YOUR BASES.*

Score a home run in sports field construction



WWW.STECEQUIPMENT.COM

(888) 325-2532

@STECEQUIP     

**STEC**  
EQUIPMENT



# SportsField

## MANAGEMENT

June 2023

Vol. 39 No. 6

The Official Publication of the Sports Field Management Association

Field Design and Construction **18** | College and University Turfgrass Programs **24**  
Safety and Security **26** | Grounds Management **34**

# College Soccer Field of the Year

**University of Houston lands top  
honor for Yokubaitis Field**



**SPORTS FIELD**  
MANAGEMENT ASSOCIATION



HD  
Sports  
2.0

## *Superior Performance from* **Field to Field to Field**

“I’m proud and grateful to win FOTY again in 2022. My crew here deserves all the credit. Their professionalism, hard work, and attention to detail are what make our field second to none. We also couldn't do it without our amazing vendors. HD Sports 2.0 is the best grass I have ever worked with and I'm excited to keep working with it for years to come.”

Dan Farnes, Director of Fields and Grounds  
America First Field, Real Salt Lake



 **LANDMARK**  
SEED COMPANY

**Landmarkseed.com**  
*High-Quality, Value-Added Seed*





Every Field has a Story.  
You set the stage.

The triumph of a championship. The bitter taste of defeat. The clash of two determined teams giving everything they have to come out on top. None of that can happen without you. The Sports Field Manager. We've helped sports field managers at every level of competition maintain safe, playable, exceptional surfaces. And we'd like to help you too. Get the full story. Visit us at [JohnDeere.com/SportsTurf](http://JohnDeere.com/SportsTurf)

**Trusted by the Best.**



**JOHN DEERE**

[JohnDeere.com/SportsTurf](http://JohnDeere.com/SportsTurf)



# Contents

JUNE 2023  
VOL. 39, NO. 6



10

10

Field of the Year College Soccer  
Yokubaitis Field, Houston, Texas

18

Field Design and Construction  
Step by Step Field Design and  
Construction

22 Sports Facility Design and  
Construction Q&A

24

Industry Education  
College and University Turfgrass  
Programs

26

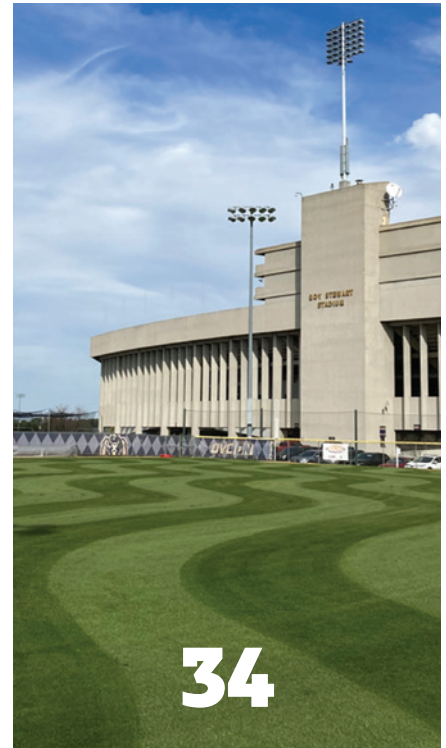
Safety and Security  
AI at the Gate: Enhancing stadium  
security and fan experience with  
digital transformation

28

Best Management Practices  
Sustainable Landscaping BMPs

34

Grounds Management  
All-around Excellence: How SSC  
and Murray State achieve fields and  
grounds success



34



26

## DEPARTMENTS

6

Editor's Note

7

SFMA President's Message

8

SFMA In Action

17

John Mascaro's Photo Quiz

38

Equipment and Technology Focus

42

From the Twitterverse

46

Innovations

47

Industry News

48

Marketplace

49

SFMA Chapter Contacts

50

Q&A





# SPRAYABLE TURF NUTRITION, REDEFINED.



Combining HCU® and Foltec® SG Minors creates an ideal tank mix of nitrogen, humic acid, and minor elements, and delivers exceptional performance with strong economics in use.

**TAKE YOUR FERTILITY PROGRAM  
TO THE NEXT LEVEL FOR AS  
LITTLE AS \$18/ACRE.\***

\*Pricing for demonstrative purposes only. Actual pricing may vary. Check with local distribution for additional information. Pricing is subject to change.

[AndersonsPlantNutrient.com/STN](https://AndersonsPlantNutrient.com/STN)

🐦 @AndersonsTurf | 📺 AndersonsPro | 🌐 @TheAndersonsPro

©2023 The Andersons, Inc. All rights reserved. Foltec and HCU are registered trademarks of The Andersons, Inc. E23



# Editor's Note



## John Kmitta

Associate Publisher /  
Editorial Brand Director  
jkmitta@epgacceleration.com  
763-383-4405

As we approach the midpoint of 2023 and begin planning our 2024 content calendar, I think it is a good time to remind you that we want to hear from you.

Whether you are a national SFMA member or not, we want your feedback, your ideas, your stories and your suggestions. If you are interested in writing for the magazine, let us know your area of expertise or even just an idea you have in mind for an article.

If you are not a prolific writer, no problem; we are always looking for industry professionals who can serve as sources for articles we are writing in house.

This is also a good time to remind those of you who are Certified Sports Field Managers that getting a bylined article published in *SportsField Management* magazine earns you valuable SFMA Industry Service Points needed to qualify for CSFM recertification.

Committing to writing a bylined article can seem daunting amid your busy schedules, but we will work with you to plan in advance, coordinate around your schedule, guide you through the process and thoroughly review/edit anything you write.

It is also around this time each year that we make a plea to SFMA

chapters. Chapter leaders and members, please send us your news, event notifications, and information on members and projects of note. We need your help to cover state and regional news.

For those of you on the academic side, we also want information regarding your latest research for our "Research Playbook" section. If you need additional information or examples, please contact me.

And for everyone reading this, *SportsField Management* is a great way to get photos of your fields, facilities and crews some national recognition. Send us your photos and captions — either by email or via a file-sharing system such as WeTransfer.com, Dropbox or Google Drive (high-resolution JPG images preferred).

With all of these initiatives, we often get a temporary boost when we send out a reminder. However, we would love to make industry participation in the magazine a habit.

*SportsField Management* offers a wealth of information at your fingertips each month, but I know there is so much of the sports field management industry about which we never hear. Contact me at [jkmitta@epgacceleration.com](mailto:jkmitta@epgacceleration.com) or 763-383-4405; and help us tell your story. **SFM**

## SportsField MANAGEMENT

EPG Brand Acceleration  
10405 6th Ave. N., Ste 210  
Plymouth, MN 55441

Official Publication of the Sports Field Management Association

### SALES REPRESENTATIVES

Leslie Palmer | National Sales Manager  
Phone: (763) 383-4460 | [lpalmer@epgacceleration.com](mailto:lpalmer@epgacceleration.com)

Edwin Rosario | Marketing and Engagement Sales Executive  
Phone: (763) 383-4495 | [erosario@epgacceleration.com](mailto:erosario@epgacceleration.com)

### EDITORIAL

Sr VP Sales/Group Publisher | David Voll  
Associate Publisher/Editorial Brand Director | John Kmitta  
Assistant Editor | Robert Augsdorfer  
Technical Editor | Chase Straw, Ph.D.  
Interactive Content Designer | Reba Zatz

### AD MATERIALS AND QUESTIONS

[ads@epgacceleration.com](mailto:ads@epgacceleration.com)

### SUBSCRIPTION SERVICES

Phone: (763) 383-4492 | [customerservice@epgacceleration.com](mailto:customerservice@epgacceleration.com)

### REPRINTS

Visit <https://epgacceleration.com/marketing-services/>  
and contact us today or email us at  
[info@epgacceleration.com](mailto:info@epgacceleration.com).

### DIRECT MAIL LIST SALES

Kris Grauer | NPS Media Group  
[kgrauer@npsmediagroup.com](mailto:kgrauer@npsmediagroup.com) | (203) 822-7933

**Publisher's Notice:** We Assume No Responsibility For The Validity Of Claims In Connection With Items Appearing In *SportsField Management*.

*SportsField Management* (ISSN PENDING) (USPS 000-292) (Reg. U.S. Pat. & T.M. Off.) is published monthly by EPG Brand Acceleration at PO Box 96, Port Jervis, NY 12771.

**Postmaster:** Send address changes to *SportsField Management*, PO Box 96, Port Jervis, NY 12771-0096.

For subscription information and requests, call Subscription Services at (763) 383-4492. Subscription rates: 1 year, \$50 US & Poss.; All subscriptions are payable in advance in US funds.

Send payments to *SportsField Management*, PO Box 96, Port Jervis, NY 12771-0096. Phone: (763) 383-4492. Fax: (763) 383-4499. Single copies or back issues, \$10 each US; Canada; \$15; Foreign \$18. Periodicals postage paid at Port Jervis, NY and additional mailing offices. COPYRIGHT 2023, *SportsField Management*. Material may not be reproduced or photocopied in any form without the written permission of the publisher.



BRAND  
**ACCELERATION**



# President's Message



## SPORTS FIELD MANAGEMENT ASSOCIATION

### Officers

#### President:

Sun Roesslein, CSFM

#### Immediate Past President:

James Bergdoll, CSFM, CPRP

#### President Elect:

Nick McKenna, CSFM

#### Secretary-Treasurer:

Adam Thoms, Ph.D.

#### Vice President Commercial:

Paula Sliefert

### Directors

#### Academic:

Chase Straw, Ph.D.

#### At-Large (elected):

Ryan DeMay, CSFM

#### At-Large (appointed):

Zachary Holm, CSFM

#### Commercial:

Erin Boyd Wilder

#### Higher Education:

Jason DeMink, CSFM

#### Parks and Recreation:

Jason Bowers, CSFM

#### Professional Facilities:

Alpha Jones, CSFM

#### Schools K-12:

Jeremy Driscoll, CSFM

### SFMA OFFICE

P.O. Box 1673

Lawrence, KS 66044

Phone: 800-323-3875

Email: [SFMInfo@SportsFieldManagement.org](mailto:SFMInfo@SportsFieldManagement.org)

[www.sportsfieldmanagement.org](http://www.sportsfieldmanagement.org)

### SFMA EDITORIAL COMMITTEE

**Chair:** Brad Thedens, CSFM

**Board Liaison:** Chase Straw, Ph.D.

**Members:** Matthew Arms, CSFM; Philip Braselton; TJ Brewer, CSFM; Joe Churchill; Forrest Jammer; John Kmitta; and David Schwandt.

Happy June, SFMA! It is hard to believe that we are halfway through 2023 already. Business at SFMA headquarters is moving along at what feels like lightning pace; but you might not hear about every project or announcement.

We have a new education manager. Jennifer McLendon is diving right into planning for the 2024 SFMA Conference and Exhibition in Daytona Beach, Florida, among other initiatives. Also, SFMA CEO Laura Simmons recently hosted a town hall meeting for chapter leadership to learn more about how to support our members where they are. Leah Craig, Nora Dunnaway and Whitney Webber are continuing to drive SFMA forward in their incredible ways. The work these five individuals accomplish on a weekly basis on behalf of our members, and growing the association, is impressive to witness. When you see any of them on Zoom, catch them on the phone or in an email, please take a moment to say thank you. Our association is much stronger because of their dedication.

Now that school is out for the summer, seasons are either wrapped up or in full swing, and the weather is getting warmer. What are your plans for summer? What are you looking forward to the most?

This month for us at work is when we wind down from spring sports and complete our postseason field renovations. This year we are



**Sun Roesslein, CSFM**

SFMA President

[Sun.Roesslein@jeffco.k12.co.us](mailto:Sun.Roesslein@jeffco.k12.co.us)

getting aggressive – fraze mowing, recycle dressing and seeding both our fields among other steps on our way to strong fields for the fall sports season.

Then it's time to catch up on things like getting the oil changed in my truck, going to the dentist and making my annual dermatology appointment. One of the reasons I love my job in the K-12 sector is that summer is my favorite time of year to live the Colorado life – paddle boarding, camping, barbecues with friends, playing golf, trying new ice cream, etc. Our sports seasons are really busy in the spring and fall, but I still get to enjoy the summertime.

I know that is not the case for everyone, so I truly hope that you are able to carve out time to do something that rejuvenates you. That is true no matter the time of year, but especially in the summer. And, as my mom always reminds me, please wear sunscreen! **SFM**

*Sun Roesslein, CSFM*





## 2023 conference education sessions

2023 SFMA Conference education sessions were recorded and are available for purchase. If you were a full conference registrant, your access instructions were emailed to you. If you would like to purchase conference education sessions, visit <https://www.sportsfieldmanagement.org/knowledge-center/>.

The full conference package is \$149. Single sessions are \$20. Sessions were audio recorded and synchronized with PowerPoint presentations. All sessions are accessible on portable devices such as iPad, iPhone and other tablet devices.

## Athlete and sports field safety

Sports field managers are consistently challenged to provide safe, playable athletic fields for athletes. In addition, maintaining a safe work environment and safe sports facilities is equally important for employees and the public. SFMA offers public resources that can be used to help you take safety precautions at your facility. Visit [https://www.sportsfieldmanagement.org/knowledge\\_center/athlete-sports-field-safety/](https://www.sportsfieldmanagement.org/knowledge_center/athlete-sports-field-safety/).

SFMA offers its members a wide variety of resources pertaining to field management for safe surfaces in the Members Only section of the website. Join today to gain access to these and many more valuable resources.

## Best Management Practices

*Best Management Practices for the Sports Field Manager: A Professional Guide for Sports Field Management* serves as a comprehensive compilation of environmental best practices for SFMA members and nonmembers, equipping them with the tools and resources to document solid environmental practices for legislators, regulators, employers, and community constituents. Although members have been following excellent practices, this program validates those and positions the sports field manager as a strong steward of the environment, which will aid in educating decision makers.

Spanning more than 100 pages, the guide includes 12 unique sections:

1. Planning, Design, and Construction
2. Turfgrass Establishment
3. Cultural Practices: Mowing
4. Cultural Practices: Nutrient Management
5. Cultural Practices: Irrigation
6. Cultural Practices: Cultivation and Surface Management
7. Cultural Practices: Integrated Pest Management
8. Pesticide Management
9. Sustainable Landscaping
10. Synthetic Turf

11. Maintenance Operations
12. Emergency Preparedness

Access *Best Management Practices for the Sports Field Manager: A Professional Guide For Sports Field Management* at [https://www.sportsfieldmanagement.org/knowledge\\_center/bmps/](https://www.sportsfieldmanagement.org/knowledge_center/bmps/).

## SFMA introduces new education manager

Jennifer McLendon is the new education manager for the Sports Field Management Association (SFMA). McLendon has an undergraduate degree in microbiology from Louisiana Tech University, a master's degree in educational leadership from the University of North Texas, and a master's degree in instructional coaching/curriculum from the University of Texas at Tyler. She is excited to be a part of the amazing staff at SFMA and to continue the journey of learning and growing in the industry. Spending time with her family, reading and hiking in the sun are among her favorite activities. She is looking forward to meeting and working with everyone throughout the year.

SFMA is excited to have McLendon join its team. She can be reached at [jmclendon@sportsfieldmanagement.org](mailto:jmclendon@sportsfieldmanagement.org) or 785-843-2549.

## Plan to apply for a SAFE scholarship or grant this year

The SAFE scholarships and grants programs will open for applications in July. Although the deadline to submit for all programs is Oct. 15, now is the time to begin assembling the information for your application.

■ **SAFE Turfgrass Scholarships** – Awards are given to students who are pursuing turfgrass management or post-graduate research. Several of these are named in Dr. James Watson's name and are completely funded by The Toro Company.

■ **The Paul Zwaska Scholarship** – The scholarship promotes diversity within the profession and recognizes and encourages full-time students pursuing a career in the sports field management profession. This scholarship is provided by Beacon Athletics.

■ **SAFE non-Turfgrass Scholarship: The Darian Daily Legacy Scholarship** – Named in honor of a legendary supporter of SFMA and SAFE and a family man, this scholarship is awarded to dependents of members who are pursuing a field of academic study outside of the turfgrass industry.

■ **Leo Goertz Membership Grant** – Multiple grants are awarded to sports field managers or crew members who are not members of SFMA. This grant is generously supported by Pioneer Athletics.



■ Gary Vanden Berg Internship Grant – Named in honor of Gary Vanden Berg, CSFM, for his contributions to the industry in promoting internships, students who have interned are eligible to submit post-internship to augment their internship wages.

■ Terry Mellor Continuing Education Grant – This grant provides funding for a SFMA chapter member to attend the SFMA annual conference. This grant is made possible through the support of Turface Athletics.

For more information on SAFE's scholarships, visit <https://www.sportsfieldmanagement.org/scholarship-program/> and for additional information on SAFE Grants, visit <https://www.sportsfieldmanagement.org/safe-grants/>.

## SFMA certification programs

SFMA is proud to offer two certification programs to its members: the Certified Sports Field Manager (CSFM) program, and the SFMA Environmental Facility Certification program.

The purpose of the **CSFM program** is to The purpose of the program is to:

- Foster and improve professionalism within the sports field industry.
- Challenge and test your knowledge of managing sports fields.
- Draw upon all aspects of your education and experience to prove that you are one of the best in the industry.

By attaining CSFM status, you will be seen as a leader in the industry, gain a sense of pride and accomplishment, improve your current or future employment prospects, and contribute to your professional advancement in sports field management.

The **SFMA Environmental Facility Certification program** helps document the environmental stewardship of SFMA members. Facilities that meet the requirements will be awarded the certification.

The certification involves an electronic assessment that can be taken from any computer or smart device. To begin, visit SFMA's website, click on the product button at the top of the page, go to page 2 of the shopping cart and add "Environmental Facility Certification Initial (\$50)" to your cart. After payment, you will be emailed a link to the assessment form.

Once you have completed the assessment, SFMA will review and score it. If you have achieved at least 80 percent compliance on each of the 12 sections, you will receive notification that you have passed. After passing the assessment, the next step is to engage a CSFM as an attester. The attester will conduct a walk-through of your facility with you to validate your environmental practices.

SFMA will send a PDF of your assessment to both you and your attester. Your attester will also receive a link to an attester form to confirm that your practices are in place. If your attester verifies your practices, your facility will be designated as an SFMA Certified Facility for Environmentally Responsible Management. **SFM**

# Become Certified!





**SPORTS FIELD**  
MANAGEMENT ASSOCIATION

- Certified Sports Field Manager (CSFM)
- Environmental Facility Certification

[www.sportsfieldmanagement.org](http://www.sportsfieldmanagement.org)





## YOKUBAITIS FIELD

### HOUSTON, TEXAS

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.





Littered with common bermuda, this field from a playability standpoint could be a nightmare. However, since our start at the University of Houston in 2020, my team has worked tirelessly on cultural practices to help improve the overall playability and appearance of Yokubaitis Field. Hosting several international clubs and the U.S. Women's National Team as recently as last year — this field has been a talking point within the Houston soccer community. Last year, the University of Houston women's soccer team went 9-1-1 at home on Yokubaitis Field, which has been the best recorded season since the start of the program.

– Brad Finn, CSFM, assistant AD of grounds, facilities and events





**Level and category of submission:** College Soccer

**Field manager:** Brad Finn, CSFM

**Title:** Assistant AD of grounds, facilities and events

**Education:** Master of Science in Leadership and Administration

**Experience:** I started my undergraduate career in Turfgrass Science and Management, which led to finishing a bachelor's degree in 2015. From there, I gained experience with the New England Patriots, Boston College, the University of Michigan, Rice University and, currently, the University of Houston. I've learned from some great field managers over the years and would not have been able to get this far without them.

**Full-time staff:** Colby Murray, Mark Medellin

**Original construction:** 1999

**Turfgrass:** Tifway 419 and common

**Rootzone:** Sand

**Soil amendments:** Earthworks, soil bacteria, wetting agents

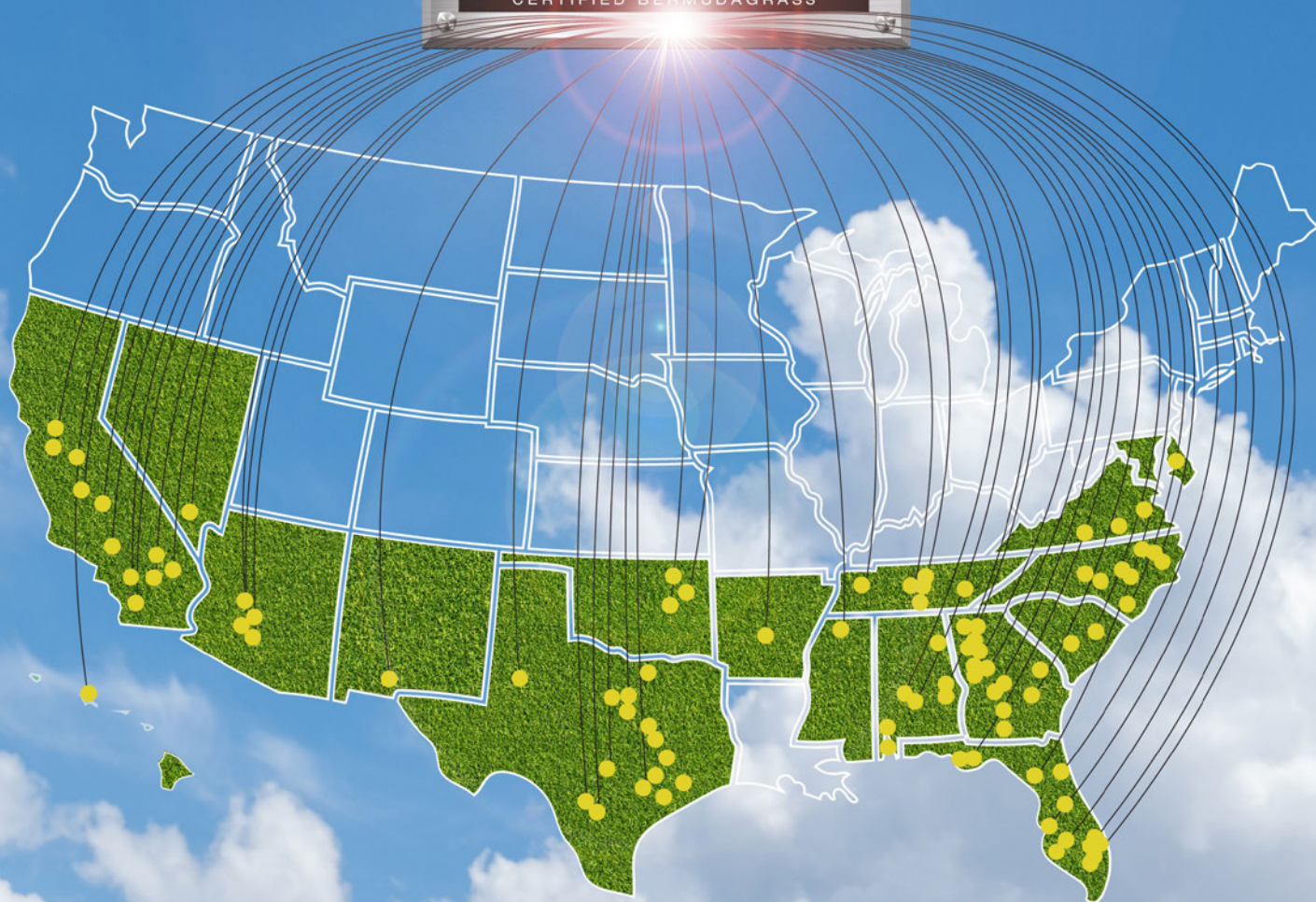
**Drainage:** French drainage and perimeter channel drainage



*Certified Bermudagrass*

# NON STOP DAILY

*From Coast to Coast*



*67 Producers / Grown in 17 States / 15,000 Acres of Production*

[www.TheTurfgrassGroup.com](http://www.TheTurfgrassGroup.com)







**SportsField Management (SFM):** Congratulations on the Field of the Year win. What are you most proud of with this win, and/or what do you think stands out most about the winning field?

**Brad Finn, CSFM:** I am proud of my team — Colby, Mark, Nolan, Will, Spenser, Carson and Andres — as each member did what they could to support our goals. We are proud that we could provide this level of service to our women's soccer program and track and field program. What stands out the most would be what communication can do. Understanding the expectations of our coaches and administration allows us to communicate and maintain the field properly. Communicating issues quickly and identifying solutions to them have also been key. But a huge shout out to the current and former members of the team.

**SFM:** What attracted you to a career in sports field management, and what has been your career path through the industry?

**Finn:** I played baseball and mowed lawns as a kid. I knew I wasn't going to be playing professionally, and becoming a sports field manager was a way to stay on the field. I started working on golf courses, and took my first internship at the University of Michigan my junior year. From there, I worked at the UMass research facility and Gillette Stadium (New England Patriots and New England Revolution). After graduation, I started working full time and studying for my master's degree at Boston College while continuing part time work at Gillette. I wanted to explore more of college athletics, which led me back to the University of Michigan as a facilities supervisor of the ice arena, and not managing any grass. After Michigan, I went to Rice University, which led me to my current role at the University of Houston.



## MACHINERY HELPING TURF CARE EXPERTS ACHIEVE PERFECTION



Campey supply market leading, innovative turf care machinery worldwide, we're continually researching new techniques and refining existing practices.

[www.campeyturfcare.com](http://www.campeyturfcare.com)



**SFM:** Who are your mentors in the industry, and/or what is the best piece of advice you have received?

**Finn:** There are a lot of people who have helped me and given meaningful advice. My supervisors that gave me opportunities and a chance are Dr. Scott Ebdon, Jason DeMink, Matt Hayes and John Bengston. The best advice I received from any of my mentors was always treat your people well. I also think watching them lead by example was something never said but always noticed. You can't be afraid to work when duty calls.

**SFM:** What are the biggest challenges you have faced with the winning field, and how have you approached those challenges?

**Finn:** We have a lot of common bermudagrass that has intruded, and have been without adequate irrigation for most of this last year. It really comes down to attention. The more time we spend on the field, the more we can impact its overall performance. We have a well-developed plan and try to execute the timing windows, which has allowed us to be successful.

**SFM:** How has your career benefited from being a member of SFMA?

**Finn:** The professional knowledge that I gain from the national show has been the most noticeable benefit. Between the conversations I have with other sports field managers and the seminars, I have always walked away with another tool for the toolbox. The SFMA has also allowed me to expand my professional network and meet other sports field managers around the country. **SFM**





# JOHN MASCARO'S PHOTO QUIZ

## CAN YOU IDENTIFY THIS TURFGRASS PROBLEM?

**PROBLEM:**

Foul line issue

**TURFGRASS AREA:**

College baseball stadium field

**LOCATION:**

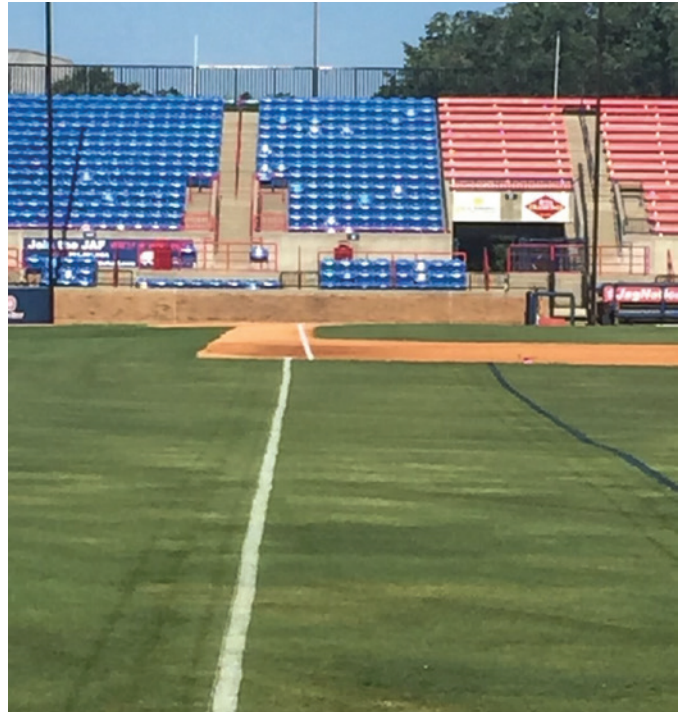
Southeastern United States

**TURFGRASS VARIETY:**

419 bermudagrass

*Answer on page 33*

*John Mascaro is president of Turf-Tec International*



*New Design  
Same Exceptional Results*



One step process - ability to inter-seed damaged or poor initial seeded areas without having to recultivate seedbed.

Easier calibration providing greater accuracy ensuring delivery of seed at your desired rate at speeds from .5 to 12 mph (8 to 19 kph).

Redesigned seed guidance / delivery system with less wear parts for more effective seed delivery.

A bigger seed hopper (66% more capacity) for greater productivity.





# Step by Step Field Design and Construction



*All photos courtesy of HNP Landscape Architecture.*

**By Mary Helen Sprecher**

The organization where you work has decided to add a new field. That's a great thing. What comes next? Often, the answer is confusion. You have an extensive knowledge of fields and their management and a great understanding of the care and maintenance of the different varieties and cultivars — but when it comes to the actual design and construction phase, getting off the starting block can be difficult.

Compounding the confusion is the fact that you may be dealing with multiple user groups — coaches, athletes, officials, school administrators, trainers, managers of travel tournaments, maybe even

community members and parents — and they all want their opinions taken into consideration.

The best place to start is at the beginning. Compile a list of what you know about the upcoming project. You can accomplish that by creating an outline that answers these questions:

- How much land is available?
- Is that land likely to be turned into one sports field or several? If so, for which sport(s)?
- What level of play will it host, or will that vary?
- Will it host practices, games or both?
- Will the field be used only during one or two seasons, or do you expect it to be hosting sports year-round?
- Has the organization decided upon a specific type of grass or turf, or is there some flexibility?





- If the surface is natural grass, will play be rotated among several fields so that this field gets to rest between periods of heavy use?
  - Do you expect any non-sports activities to be hosted there, such as fairs, graduations, marching band practices, etc.?
  - What amenities will be needed for the new field (i.e., bleachers, lighting, irrigation, team seating areas/dugouts, parking, etc.)? Will you want the field built and all amenities installed together, or do you expect to build in phases?
  - Is there an electrical or a water supply at the site already?
  - Will there be a running track around the field?
  - What is the overall budget for the project?
  - How accessible is the site for operators of construction equipment?
  - Has a feasibility study been performed by a consultant? (Such data can be useful in helping to illuminate user preferences, as well as site capabilities.)
- All these answers will help provide some direction for you, and for the professionals with whom you'll be working (more on that later).
- Next, make a list of the things you already know about your own facility (this, at least, is easier to answer):
- What is your climate like?
  - What is the soil like?
  - What type of grass (or turf, or both) do you have?
  - What are your maintenance capabilities?
  - How involved is the field owner in decision making for the facility?
  - Who is your general clientele? Do you see more travel tournaments, youth sports leagues, high school play, college teams, or something else?
  - What is the facility's overall schedule like? When is it busiest and why?



The next step is to take into consideration the priorities of the user groups. That might sound almost overwhelming since so many people are eager to weigh in.

John Schedler of Baraka Sport recommends getting groups together for discussion at the outset of the project. This can be accomplished through a virtual meeting and may be more orderly if groups are given a deadline and asked to submit their questions and requests via email.

"You want to avoid having too many chefs in the kitchen," said Schedler. "Have a single meeting to gather the information and then reduce the input and noise."

Once the larger group has had a chance to voice its opinion, Schedler advises creating a team of only those who should be giving direct input during the project. That group can study the requests of the larger group and prioritize accordingly.

"It's easier to make smart decisions based on input from your much smaller group," he said. "Usually, that group is limited to you, a coach or two and one or more experienced professionals in design and construction. There are many owners who have to





realize that you cannot please everyone. Decisions have to be made based on your expectations, use and maintenance capabilities and especially based on expert advice regarding what can and cannot be done.”

If you have previously worked with a design professional and/or a skilled sports field builder, reach out to those individuals or their companies. If you do not have any current records of such personnel, it is best to avoid doing a random web search (which could have equally random results in terms of the quality of companies found). A better option is to use the “Find

a Member” feature on the website of the American Sports Builders Association ([www.sportsbuilders.org](http://www.sportsbuilders.org)). The feature is available at no cost and allows the user to select by state or to use keywords (such as soccer field or baseball field) when narrowing down the search.

According to Mike Munie of Perfect Play Fields & Links, having knowledgeable professionals is key to the success of the project.

“A significant percentage of new fields are not properly thought through during the design and construction phase,” Munie said. “A great field starts with a good framework. If possible, select a site that will accommodate the field, required parking, and any other amenities that could be desired or needed in the future.”

Parking, though not a direct part of field construction, is critical to the user-friendliness of a facility, and contributes greatly to users’ decisions on whether to return. It is necessary to have adequate parking; and, with a new field being added, thought will have to be given to the fact that larger events will be possible, which means more people coming in for games and tournaments.

Perform a parking audit of your current facility. What is parking like on its busiest days? If lots are already full at those times or if people are parking in areas such as adjacent neighborhoods or on streets because there’s no space, you’ll need to take that into consideration and plan for extra parking. Otherwise, you’ll hear complaints.





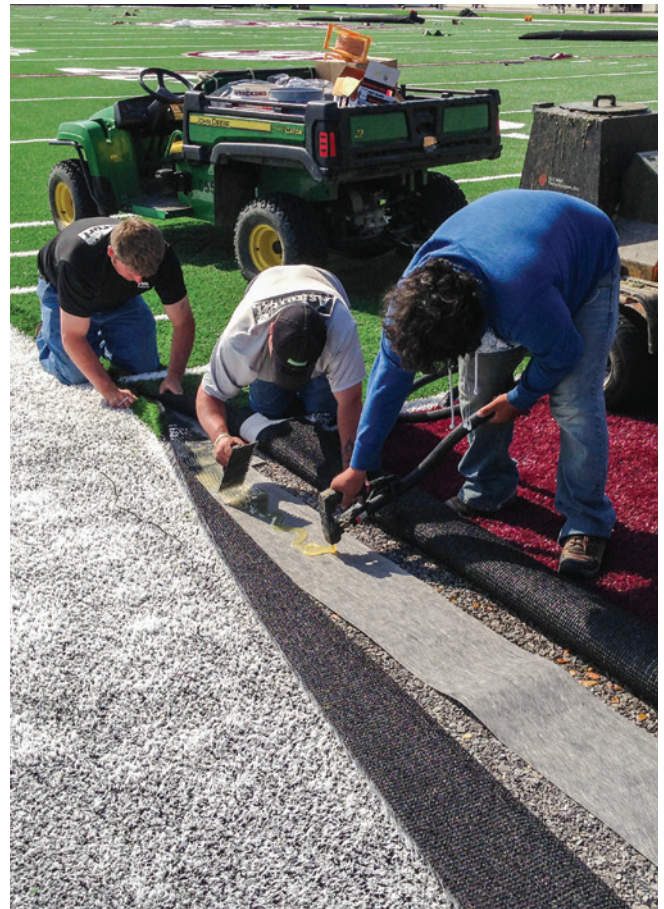


Find out, too, whether any sidewalks or paths need to be created leading to the new field. Make a note to add signage once the field is complete so that players who are new to the complex can locate the field where they will be playing. And, of course, work with your field contractor to order any sports equipment (goals, batting cages, etc.) well in advance to avoid backlogs or delays.

At the same time, do an audit of your field maintenance equipment since its workload will increase with the addition of a new field. It may be time to tune up, upgrade or even replace heavy equipment if it is getting older and might not stand up to the extra mileage. If extra storage space is needed for new equipment, this is a good time to get started on that project as well.

Facing a new design and construction project can be daunting, but with a solid team of skilled professionals, the finished product will be worth it. **SFM**

*Mary Helen Sprecher wrote this on behalf of the American Sports Builders Association (ASBA). Information on design, construction, amenities and accessories for sports facilities can be found in the ASBA publications Sports Fields: A Construction and Maintenance Manual and Running Tracks: A Construction & Maintenance Manual, as well as on the ASBA website ([www.sportsbuilders.org](http://www.sportsbuilders.org)).*





# Sports Facility Design and Construction Q&A



For insight into sports facility design and construction, *SportsField Management* recently spoke with Nick Bauer, product manager at Sightline Commercial Solutions. Bauer manages the research and development of new architectural railing and platform and staging products and solutions. His duties include financial and technical competitive analyses, benchmarking products, services and processes against those of other organizations, creating technical drawings and specifications and providing marketing assistance.

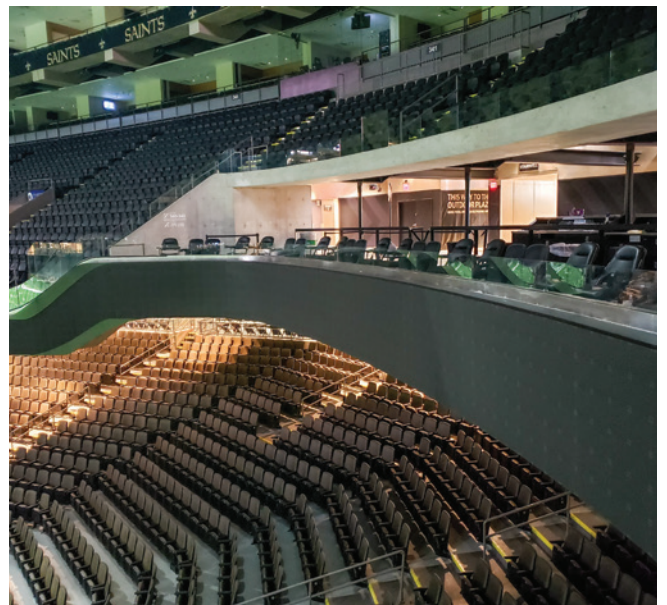
Based in Minneapolis, Minnesota, Sightline Commercial Solutions is a leading fabricator and global supplier of architectural railing, metal, glazing and portable platform solutions for the commercial, sports venue, live entertainment and performing arts industries. Sightline's solutions can be found at major sporting venues including Allianz Field (Minnesota United FC), Lower.com Field (Columbus Crew), CityPark (St. Louis CITY SC), Bank of America Stadium (Carolina Panthers and Charlotte FC), Geodis Park (Nashville SC), and much more.

**SportsField Management (SFM):** What goes into the planning/designing/building process at major venues, and what is the process of determining the optimum solutions for the various applications throughout these venues?

**Bauer:** Major venues are a multi-year process from the initial planning, bidding and drawing of reviews to the production and installation of products and the facility opening. At Sightline Commercial Solutions, we pride ourselves on getting involved early in the process, even before we are awarded a contract. Oftentimes, architects of major sports venues know what they want, but don't know how to achieve their goals. We work closely with those architects to help bring their visions to reality and provide guidance on the best approach. We see ourselves as a partner rather than just another contractor.

**SFM:** What is the actual installation process/ timeframe for projects of this magnitude?

**Bauer:** The installation process is a coordinated effort between the general contractor, Sightline Commercial Solutions and the installation crew. Installation timelines at major venues can range from six months to several years for just our portion of the contract, so we work through a schedule and make sure the product is delivered and installed on time, because being behind or too far ahead may hinder other trades. We are also usually on site during the final days before a venue opens to ensure everything is up to customer standards.







**SFM:** We have seen increased popularity of safe standing sections. What has led to that growth? What overall design/build trends have you seen with regard to creating safe standing sections? And what are some features of those types of sections, as well as any unique considerations that go into the planning?

**Bauer:** The popularity of safe standing sections can be attributed to the explosive growth of Major League Soccer and its venues. However, other sports are jumping on the trend, especially college football venues that want to provide student sections as a secure place to enjoy the action. Overall, the trend is about creating a safe space for fans to enjoy games while being in areas that promote that gameday energy and allow them to stand up, cheer and chant without disturbing others behind them.

The main feature of safe standing sections [from our standpoint] is Sightline Commercial Solutions' Seating Rail, which incorporates seats directly into a railing system. This gives fans, and more importantly venues, the option to turn a seating area within the bowl into a standing room only section without needing to remove seats. The system also adapts to steep rakes with the help of its ultra-slim seating profile. The angled frame not only creates a comfortable lean rail for standing supporters, but also provides a safe boundary to prevent energetic fans from falling into the next row and increases headroom for patrons during seated events.

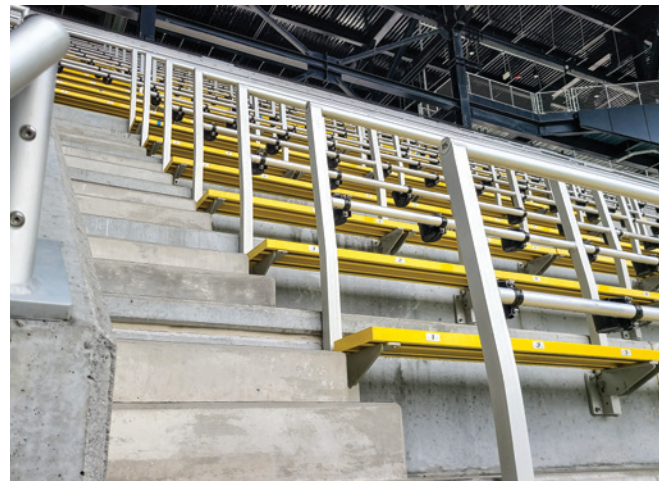
**SFM:** Venues such as GEODIS Park are utilizing a wide range of solutions, including cable rail, aisle rail, grip rail, anodized aluminum rail and stainless-steel clad glass guardrail. In addition, you used 3-D laser scanning and tube lasers to engineer all aisle railings. What can you tell us about the advanced materials, technologies and techniques that go into not only creating a safe fan experience, but also an optimized design aesthetic?

**Bauer:** Utilizing materials like aluminum, which is far superior when manufacturing railings compared to traditional stainless steel, allows us to be flexible with designs. We can develop and extrude different and unique shapes, as well as provide a variety of different finishes. Investing in 3D scanning units and a variety of laser equipment has afforded us the ability to be extremely accurate and nimble enough to produce final products in a timely manner. We've developed these techniques over the course of several decades because how a railing looks is as important to us as how it functions. Since 2003, we've partnered with architects and provided railings for major sports venues. Prior to that, we were heavily involved in designing and manufacturing portable seating and VIP spaces for commercial, athletic, live entertainment and performing arts venues.

**SFM:** What trends are you seeing with regard to sports stadium design and construction?

**Bauer:** We are seeing sports stadiums trend toward providing unique fan-engagement spaces throughout their venues rather than simply typical suites. From rooftop or elevated patios to large club areas and branded seating sections, field-level suites and other special seating, all the areas are being designed with a unique flare and distinctive look that mixes metals, glass, wood and even stone. We are also seeing large stadiums being built in the digital world first thanks to 3D software, which can coordinate trades and materials before any actual production is completed or single yard of concrete is cast. **SFM**

*For more information about Sightline Commercial Solutions' projects, visit <https://www.sightlinecommercial.com/projects>.*





# College and University Turfgrass Programs

**EDITOR'S NOTE:** The following is the next in our series delving into colleges and universities that offer programs devoted to turfgrass management, turfgrass science, and related disciplines. In this edition, we examine the turfgrass program at the University of Nebraska-Lincoln.

## UNIVERSITY OF NEBRASKA-LINCOLN

The Plant and Landscape Systems major at the University of Nebraska-Lincoln (UNL) aims to educate and develop professionals to design and manage complex horticultural, landscape and turfgrass systems. The three primary options for this major are horticulture, landscape design and management, and turfgrass science and management. Additionally, students complement their program of study with two additional areas of professional specialization provided through emphases and/or minors. The turfgrass science and management program at UNL is a nationally recognized program with students highly sought after for internships and full-time positions.

According to Anne Streich, professor of practice and advisor, Agronomy and Horticulture, University of Nebraska-Lincoln, in 2017, the UNL Agronomy and Horticulture Department went through an academic program review that ultimately resulted in the creation of a new major that would encompass all of the disciplines to retain traditional students, but also draw in new students.

"Today we have turfgrass science and management, landscape design and management, and horticulture under the Plant and Landscape Systems major," said Streich. "Agronomy will stay as its own major. What I really like about this new major is that it allows a lot of flexibility for students."

According to Streich, Plant and Landscape Systems students can tailor their academic program to meet their professional goals thanks to 24 credits worth of classes in which students can take emphases or minors. Those emphases or minors help students develop their skills and knowledge in areas that will benefit them in the professional world. She added that students can adjust their emphases or minors as they go without negatively impacting their credit load.



"One of the nice things about this new major is that we have a common core," said Streich. "Students start with a common core that includes plant science, introductory insect and diseases courses, botany, soils, and a plant systems course that introduces students to agricultural, horticultural, landscape, and turfgrass systems. Having a common core for all our disciplines allows students to change options without losing time. They can use classes they've already taken and still have those count toward the 120 credits required for graduation."

The Plant and Landscape Systems curriculum also offers 1-credit courses students can take to fill some of their degree requirements. Those courses are specific topics that may be important to some facets of the turf industry, such as turf painting and modified rootzones.

According to Streich, UNL currently has approximately 200 students across its Agronomy and Landscape and Plant and Landscape Systems majors, with approximately 20 of those in the turfgrass program. Approximately 70 percent of UNL's turfgrass students are focusing on golf course management with the other 30 percent focusing on sports turf. Streich added that incoming students are a pretty even mix of incoming freshmen and transfer students.

"At Nebraska, we have a PGA golf management program, and we are starting to pick up students because of that





program,” said Streich. “With the flexibility of our Plant and Landscape Systems major, we can take all 24 credits of their PGA golf management courses and sub those in for the 24 credits of the Plant and Landscape Systems emphases and minors. Combining the two disciplines is perfect for students who want to be general managers. They can complete both majors with little extra time.”

According to Streich, collaborating with the PGA golf management program allows for learning experiences that bridge operations (golf or sports turf) staff and turf management professionals.

“One of the experiences that we do each fall is to take a group of turf and PGA golf management students to Kansas City and speak with operations and turf management staff about communication and developing high-functioning teams,” she said. “We visit three golf courses and two professional sports turf fields.”

UNL also has an active Turf Club and competition team, and almost every turfgrass science and management student is a member.

“We meet around once per month, we have guest speakers, do different activities, and go to different sites,” said Streich. “Our Turf Club recently challenged the KSU Turf Club to a golf match play tournament, the Border Battle.”

In addition, all UNL turfgrass science and management students are required to do two internships. “Internships are really important for taking the knowledge they gain in the classroom, putting it into practice, and understanding the science behind why they are doing what they are doing,” said Streich. “I encourage students to get outside of Nebraska for at least one of those internships, so they experience a different growing environment, a different management style, and make different professional connections. Since 2009, I’ve had students in 33 different states; Washington, D.C.; Ireland and England.”

According to Streich, UNL turfgrass students are also exposed to a variety of research opportunities.

“We provide undergraduates with faculty-led, hands-on research and experiential learning opportunities,” she said. “One of our research sites is located on campus, which allows students to engage in research activities between classes and allows faculty to use the site for class activities.”

In order to attract new students to its program, UNL has a student recruiter, but the program also recruits new students through its alumni and professional connections. “If they see a student who is working on their crew who is excelling, they will often reach out,” she said. “Having alumni out there is very beneficial. We also connect current students to alumni through various avenues to make sure they have a good professional network.”

Streich added that it is important to let prospective students know that there are career opportunities in turfgrass science and related fields, but it is equally important to bring awareness to high school counselors and teachers. She would also like to see careers in turfgrass promoted at sporting events/venues, even if it’s just a sign on a fence.

According to Streich, UNL’s turfgrass program has much to offer prospective students.

“Our faculty are very willing to support and work with students to help them gain experiences or knowledge they are seeking,” she said. “Even if that means setting up a special projects course for just one student. Our program is large enough to have all the extra learning opportunities outside of the classroom, but small enough where we know our students well and can reach out to them individually if we see an opportunity that fits a specific student’s professional goals. In addition, we have strong scholarship support to help students pay for college.”

Streich also reiterated the flexibility of the Plant and Landscape Systems major with the Turfgrass Science and Management option, and the fact that students can create what they want to be professionally.

“If they tell me what their professional goals are, we can say, ‘What classes and experiences are going to be best to help you reach those professional goals?’ Taking those classes that are targeted to what you want to do down the line is highly beneficial,” she said. **SFM**

*For more information about the University of Nebraska-Lincoln turfgrass program, visit <https://agronomy.unl.edu/turfgrass-landscape-management>.*

*Follow the UNL Turf Club on Twitter @UNLTurfClub*



# AI at the Gate

*Enhancing stadium security and fan experience with digital transformation*



By Peter Evans

During a fourth-quarter timeout of a pivotal playoff game between the Dallas Mavericks and Phoenix Suns, Phoenix point guard Chris Paul wasn't talking with his teammates. He was huddled with police and venue security after rowdy and unruly fans harassed and made physical contact with his family behind the team bench.

The offenders were removed from the arena and banned from NBA venues for a year, but the incident is emblematic of a troubling trend at live events. Fans are increasingly behaving badly, and venue operators are having to adapt their security strategies.

Instances of unruly fan behavior — from verbal assault to physical violence — are on the rise. As The Washington Post succinctly reported last year, “As the crowds have increased, so have episodes of disturbing misbehavior.”

These encounters expand beyond just professional sports. High school administrators and youth sports leagues are grappling with unruly fan behavior and threatening situations from students, parents and other patrons.

Stadium owners, management groups and administrators are taking notice. Their rationale is simple: disorderly conduct by some undermines the experience for all. Patrons will be less willing to pay for the tickets, concessions and souvenirs that help make sports profitable if the in-person experience isn't exceptional, or if it is a risk.

In other words, why would people attend in-person events when they can enjoy a safer, simpler experience on their HDTV at home?

Digital transformation and innovation can help alleviate these challenges, enabling venue owners and operators to provide safe, secure and compelling fan experiences that keep people coming back for more.

## DIGITAL TRANSFORMATION MEETS PHYSICAL SECURITY

Digital transformation has disrupted and forever changed virtually every sector of life. However, physical security has remained a labor-based model built dozens of years ago based on different societal expectations than today.

This is especially problematic as venues have struggled to attract and retain staff since the pandemic. According to industry analysis by *Security Management*, 95 percent of venue security professionals surveyed said they “experienced staff shortages over the past two years.”

Broad labor shortages and rising costs related to talent scarcity have made security a unique challenge just when venues need it the most.

Digital transformation can revolutionize security by providing better data and enhancing fan experiences. For example, Artificial Intelligence (AI) technologies empower advanced systems for weapons detection,





threat identification and patron verification. These sensors are able to detect unique properties for each type of item, and the AI and machine learning engines are able to correlate the data to accurately categorize the item (or items) carried by an individual.

Powered by intelligent video surveillance, AI-driven solutions allow venues to move beyond metal detectors, stop-and-frisk techniques, and ticket scanning processes to provide a more secure, frictionless and flexible entrance experience. These technologies leverage sophisticated sensors, powerful big data analysis, and real-time risk assessments to provide actionable intelligence to in-person professionals.

At the same time, digital transformation provides a wealth of data that can support a variety of security and operational outcomes. Like online retailers who know about their customers when they return to shop, data-driven insights can radically change how we experience an event — including managing facility traffic, parking lines, patron screening, ticket verification, alcohol purchases, merchandise arrangements, and more.

For example, in 2021, the New York Mets began investigating facial recognition software and AI to authenticate season ticket holders, streamlining many processes — ticket verification, user verification and more. This year, more facial recognition applications are finding use to identify good actors and bad actors in stadiums, arenas, schools and workplaces, a burgeoning trend with implications for everything from expansive stadiums to local sporting events. As the technology becomes more affordable, accessible and effective, managing facility traffic will become more tech-centric and automated than ever before.



All photos provided by Xtract One Technologies

## BENEFITS OF MAKING SECURITY MORE DIGITAL

Digital transformation can provide several benefits in security, including:

- **Enhanced experience and better data.** Digital technologies and screens can provide more information on patrons, allowing for a more personalized and streamlined security experience. This can reduce wait times and improve the overall experience for fans.

- **Customization for specific events.** With digital transformation, security measures can be customized for specific events and types of patrons. For example, security measures may differ based on the type of event, the number of attendees, and the requisite crowd-control measures to ensure everyone has a safe, enjoyable experience. Similarly, different attendees — from the longtime VIP suite holder to the new patron — can be identified and provided with a unique and customized experience.

- **Improved threat detection.** Digital transformation can help improve threat detection capabilities by utilizing innovative technologies such as AI, enabling faster and more effective identification of potential risks. This can reduce the likelihood of mass casualty events and enhance overall safety.

The post-pandemic era has presented new challenges in ensuring stadium security and enhancing the patron experience. However, embracing digital transformation has become the key to overcoming these obstacles.

Advanced technologies can enhance data gathering and fan experiences while bolstering security. Innovations such as AI-driven weapons detection and threat identification systems, as well as facial recognition for ticket verification or banned patron identification, can provide a more secure and frictionless entrance experience.

Furthermore, data-driven insights can improve operational outcomes, such as managing traffic flows, managing customer experiences, and optimizing resources. Thus, the digital transformation of security can create safer, more enjoyable environments for attendees, boosting the long-term viability of in-person events. **SFM**

*Peter Evans serves as CEO of Xtract One Technologies, a technology-driven threat-detection and security solution leveraging AI to provide seamless and secure patron access control experiences. Evans has more than 25 years of experience leading organizations' digital transformation and innovation activities for customers in high-growth technology businesses.*



# Sustainable Landscaping BMPs



The following sustainable landscaping best management practices are excerpted from SFMA's National BMP guide, *Best Management Practices for the Sports Field Manager: A Professional Guide for Sports Field Management*. The full guide, as well as a customizable BMP template, is available at [https://www.sportsfieldmanagement.org/knowledge\\_center/bmps/](https://www.sportsfieldmanagement.org/knowledge_center/bmps/).

While care of sports fields is the highest priority for sports field managers, native areas may also be an important component of sports field managers' responsibilities. Landscaped and natural areas provide additional recreational opportunities, such as areas and paths for walking, wildlife habitat, and natural buffers that help delineate field or property boundaries, while also moderating external noise. Maintaining these aesthetically pleasing areas for the safety of recreational users and as sustainably as possible is

economically advantageous and supports biodiversity. Developing or expanding naturalized areas may also reduce dependence on water, chemical, and fuel inputs, while allowing more intensive maintenance to be reserved for areas dedicated to sports (Lyman et al., 2007; Gross and Eckenrode, 2012).

Facilities with additional acreage can provide an ideal opportunity for environmental stewardship and conservation. Vegetated areas with a greater diversity of plant species support wildlife by providing forage and habitat (Tallamy, 2009). Less intensively managed vegetation (e.g., tall grass and naturalized areas) directly correlates with a higher biodiversity for plants, animals and insects (Colding and Folke, 2009; Dobbs and Potter, 2013). Properties can contribute to plant and pollinator diversity by expanding natural habitat throughout the property, both in the native areas and in high-visibility areas, such as the property surrounding outbuildings and parking lots.



## BENEFITS OF SUSTAINABLE AREAS

An ecosystem with a healthy variety of plants fosters a robust biodiversity of animal and insect species. Plants provide a primary food source and habitat, yield nutrients, improve soil health and produce oxygen. Properties can provide a critical link that connects wildlife corridors by increasing naturally vegetated habitat, including unmown grass and native wildflower meadow areas. Benefits of increasing the sustainability of native areas include:

- Attracting beneficial wildlife, supporting pollinator habitat, enhancing biodiversity and creating aesthetic interest that provides year-round visual pleasure for sports enthusiasts using sports fields and users of recreational fields or trails.
- Providing an option for native areas that requires fewer non-renewable inputs (fertilizer, water and gasoline) to maintain.
- Protecting soils, natural vegetative cover, water resources and water quality.
- Increasing plant biomass production than what is found in high-maintenance areas (Wissman, 2016).

## SUSTAINABLE LANDSCAPING CONCEPTS

According to the American Society of Landscape Architects, “Sustainable landscapes sequester carbon, clean the air and water, increase energy efficiency, restore habitats, and create value through significant economic, social, and environmental benefits.”

As land becomes developed, the importance of sustainable landscapes providing these ecosystem services in open, managed tracts of land cannot be overstated. In addition, naturalized areas can offset the higher carbon demands for maintenance activities (such as mowing) as compared with more intensively managed sports fields.

When designing a sustainable landscape, plants should be selected for much more than simple aesthetic value. Native plants should be selected whenever possible as they are already adapted to the existing soil conditions, available water and the microclimate, reducing or eliminating additional inputs of irrigation, fertilizer and soil amendments. Native plants have also evolved in concert with native wildlife and pollinators, providing the foundation of local food webs that enable butterflies, birds and other wildlife to survive. Furthermore, most native herbivorous insects and pollinators are specialists that cannot survive on introduced or exotic plant species.

## SUSTAINABLE LANDSCAPE DESIGN APPROACHES

Two distinct approaches to sustainable landscape design are as follows:

**Traditional Design:** Uses native plants as an alternative for introduced or exotic ornamental species in a formal garden, often including mulched landscape beds and lawn areas. Required maintenance is the same as any typical garden area, with possibly reduced irrigation if drought-tolerant plants are used. This type of design is best suited for high-visibility areas, such as around buildings and other areas that provide aesthetic focal points.

**Naturalized Design:** Uses maturing and evolving native plant communities, such as tall grass, meadow and forested areas. This style is a more viable and cost-effective option in the long term for large tracts of land. Required maintenance is consistent with meadows and periphery areas.

Facility managers seeking to conserve water and protect ecosystems on their properties can incorporate sustainable landscaping GI systems. Green infrastructure is effective, economical, and improves the safety and quality of life through the intentional use of the ecosystem services provided by plants in the managed landscape (EPA, 2017). Green infrastructure conserves, restores, or replicates the natural water cycle by reducing and treating stormwater runoff, thus turning a potential pollutant into an environmental and economic benefit. Green roofs, rain gardens, bioswales, cisterns and permeable pavements are examples of GI landscaping.

Sustainable landscaping is part of the required protocol when seeking Leadership in Energy and Environmental Design (LEED) certification. LEED is an internationally recognized green building certification system. Developed by the U.S. Green Building Council, LEED provides facility owners and operators a concise framework for identifying and implementing practical and measurable green building design, construction, operations and maintenance solutions.

## SUSTAINABLE HIGH-VISIBILITY AREAS

Landscaping in high-visibility areas around buildings makes a lasting impression on players, sporting event attendees, and the community at large. Sustainable landscaping concepts can be incorporated into these landscaped areas to fulfill both the facility's environmental commitment and its aesthetic goals in focal areas. Sound design includes the selection of site-appropriate plant cultivars that permit reduced maintenance to remain



**Species that provide the greatest support to native butterfly and moth caterpillars.**

Trees		Perennials	
Common Name (Botanical Name)	Butterfly/Moth Species Supported	Common Name (Botanical Name)	Butterfly/Moth Species Supported
Oak ( <i>Quercus</i> )	534	Goldenrod ( <i>Solidago</i> )	115
Black Cherry ( <i>Prunus</i> )	456	Aster ( <i>Symphyotrichum</i> )	112
Willow ( <i>Salix</i> )	455	Sunflower ( <i>Helianthus</i> )	73
Birch ( <i>Betula</i> )	413	Joe Pye Weed ( <i>Eutrochium</i> )	42
Poplar ( <i>Populus</i> )	368	Blue Grass ( <i>Poa</i> )	42
Crabapple ( <i>Malus</i> )	311	Sedge ( <i>Carex</i> )	36
Blueberry ( <i>Vaccinium</i> )	288	Lupine ( <i>Lupinus</i> )	33
Maple ( <i>Acer</i> )	285	Rye, Blue Wild ( <i>Elymus</i> )	31
Elm ( <i>Ulmus</i> )	213	Violet ( <i>Viola</i> )	30
Pine ( <i>Pinus</i> )	203	Wild geranium ( <i>Geranium</i> )	24

Credit: D. Tallamy.

healthy and attractive. For turfgrass areas, the National Turfgrass Evaluation Program, Alliance for Low Input Sustainable Turf and Turfgrass Water Conservation Alliance can provide information on improved cultivars of turfgrasses that perform well with fewer inputs.

Whenever new construction or renovation occurs, landscaped areas should be amended to include more native plant material. Incorporating native plants supports a reduced maintenance program that requires less time and expense to maintain. Keys to establishing strong, healthy landscaping plantings are as follows:

- Soil testing and modification (if needed).
- Weed management during the establishment phase.
- Supplemental irrigation to encourage plant establishment (if possible).

In landscaped areas, low-quality, highly disturbed soils promote the growth of weeds, including invasive weeds, that outcompete desired plants. Therefore, soil tests that provide data on nutrient levels and soil structure can provide the information needed to modify soils if warranted, prior to planting, greatly improving the success of these efforts. Weed management during the establishment phase is critical to allow the native plants the chance to establish themselves before competition from weeds decreases the quality and density of the native plantings. Lastly, during establishment, especially during drought, supplemental irrigation helps to promote plant growth. Once established, native plants are acclimated to local climate and conditions.

**SUSTAINABLE NATURALIZED AREAS**

Sustainable naturalized areas can help managers meet their goals to improve both environmental protection

and economic sustainability. While sports fields normally require sufficient irrigation for overall plant health and recovery from wear, other areas of the facility will not need to be as intensely maintained. Facilities that experience increased seasonal water limitations may consider design alterations of non-turfgrass areas to increase or reduce the amount of natural grass areas that require irrigation.

These non-turfgrass areas can also help to restore habitat and increase biodiversity.

Conventional landscapes use less than 15 species in an average landscaped lot, while the average undisturbed forest or meadow can support 100 species in the same area. In addition, diverse, multi-storied plantings store more carbon than mown turfgrass areas (Selhort, 2012). Plantings can also be made specifically to support pollinator habitats.

While developing a plan to improve and expand wildlife habitat, existing native habitats should be protected, and existing natural amenities expanded or enhanced. Retain or restore existing native vegetation, where possible. Where appropriate, existing vegetation should be enhanced through the supplemental planting of native species around native areas and water sources. Wet areas and waterways (streams and ponds) should be planted with native wetland vegetation utilized by many wildlife species. Nuisance, invasive and exotic plants should be removed and replaced with native species adapted to the site.

**POLLINATOR HABITAT**

Habitat for pollinators includes foraging habitat, nesting sites, and available water sources. Pollinator-friendly habitat contains a diversity of blooming plants of different colors and heights, with blossoms throughout the entire growing season. Native plants provide the most nutritious food source for native pollinators.

Increasing habitat to meet pollinator needs can be accomplished simply by adding to existing plantings or through more intensive efforts to establish a larger native area. Pollinator habitat includes grassy areas and landscaped areas. Areas renovated specifically with pollinator habitat as a priority includes native plants, wildflowers, and flowering trees and shrubs.



To convert existing areas to a new native area, site preparation is key and may require more than one season of effort to reduce competition from invasive or other undesirable plants prior to planting. For more information on establishing a native area, university Extension specialists and published information, such as *Making Room for Native Pollinators*, can be consulted.

In addition to foraging habitat, pollinators require nesting sites. Providing nesting sites for native species can be accomplished by making simple alterations in landscaped or natural areas, such as:

- Leaving exposed patches of bare soil in natural areas.
- Leaving dead trees, stumps, and posts.
- Planting hollow-stem grass species.
- Providing stem bundles of hollow plant stems like bamboo.
- Creating bee blocks for solitary nesters such as mason and leafcutter bees.
- Creating artificial boxes for bumble bees.

A clean, reliable source of water is another essential habitat consideration for pollinators. Pollinators can use natural and human-made water features such as running water, pools, ponds and small containers of water. Water sources should have a shallow or sloping side, so the pollinators can easily approach the water without drowning. In addition, irrigation management practices

that preserve ground nesting pollinators include irrigating in the early morning before pollinators leave their nests to forage and avoiding flooding any areas.

### HABITAT CORRIDORS

Sports field facilities can make a positive and significant impact on wildlife diversity by creating new habitat corridors or expanding existing corridors. Corridors are areas of habitat physically connecting plant and animal populations that cannot maintain healthy, genetically diverse populations when highly fragmented due to human activities or structures (UC-Davis, 2008). To achieve the goal of creating or expanding corridors, habitat patches can be linked with continuous strips of natural vegetation both within the facility and linking to patches outside the facility boundaries. This increases the area available to native wildlife species.

### INVASIVE SPECIES

Invasive species are non-native plants and animals that may negatively affect the environment, human health, and the economy. These species include noxious weeds, non-native insects (such as earthworms and other soil-dwelling pests that may be found in soils and potting media) and some non-native animals. University Extension specialists and publications can provide information on the species





that may be found in the region and management steps that may be taken to control their spread.

Unwanted invasive species should be promptly managed to prevent their spread or, where practical, eradicated. Areas of large populations of any unwanted species that is invasive should be delineated and monitored to contain further expansion of these areas, including at new construction sites. Whenever possible, native plants should be used to revegetate disturbed areas. Intentionally planting or propagating certain invasive plants may be in violation of state, regional or local regulations or ordinances.

### MEADOWS/TALL GRASS AREAS

A meadow is an area of natural grasses and/or native wildflowers that, over time, becomes self-sustaining. Native meadow plants are resilient, are accustomed to the regional climate, and can survive adverse conditions. Meadow plants have adapted to the existing soil conditions, water availability, and microclimate challenges. For example, these plants have a deep-penetrating fibrous root system making them highly drought resistant. Meadows that are successfully incorporated into landscape management programs can reduce some facility maintenance expenses, such as labor for mowing and equipment wear and tear.

In an increasingly developed world, meadows provide valuable habitats for a variety of birds, pollinators and other wildlife. In addition, community groups are often interested in partnering with facilities in different ways,

such as to install, maintain and monitor nesting and roosting sites. For example, meadows provide appropriate habitat for many bird species, such as bluebirds and purple martins. Other ideas that have been implemented at some facilities with community support include the installation of beehives, bat boxes, etc.

### ESTABLISHMENT

Proper site selection, plant selection, site preparation, and maintenance are critical to designing, establishing and sustaining a flourishing, beautiful meadow. Lists of recommended meadow plants for your region can be obtained from university Extension programs.

Most meadow plants prefer full sun. A substantial portion (about 40%) of a meadow should be comprised of grasses (Zimmerman, 2010), to reduce weed seed germination and establishment surrounding the desired perennial forbs. Time spent on site preparation that eliminates competing vegetation leads to fewer weeds in subsequent years. Soil surface disturbance during site preparation should be minimized whenever possible, to prevent unnecessary weed germination at the soil surface. Less disturbance to the site also maintains soil structure and integrity.

As part of the overall meadow establishment protocol, an effective maintenance plan should be developed before planting and should be implemented for the successful longevity of the meadow. The initial three years of meadow establishment require both patience and focused effort. During establishment, a nurse crop such as a quick-establishing, clump-forming grass can be used to reduce weed invasion, hold the seed or young plants in place, and protect the soil from erosion.

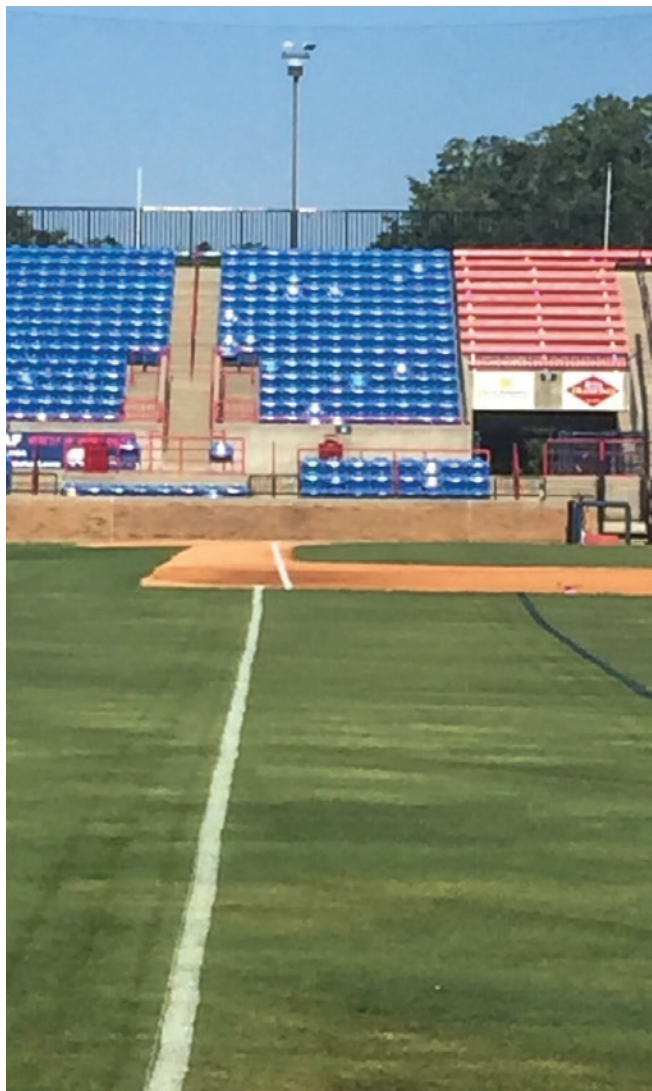
In the first growing season, perennial meadow plants grow slowly, with an average height of 2 to 6 inches, depending on species. Annual weeds proliferate and grow quickly if given the opportunity. Therefore, regular mowing and spot treating can prevent weeds from growing too tall and outcompeting the desired perennials.

### MAINTENANCE

After the first year, maintenance of native areas typically requires annual mowing in late winter or early spring. Annual mowing encourages seed/soil contact of desired wildflowers and grasses, reduces growth of unwanted woody species, and helps to manage weed populations. This maintenance should be timed before the growing season begins. **SFM**



# JOHN MASCARO'S PHOTO QUIZ



**Photo submitted by Tyler Cornish, associate director of stadium operations at Prasco Park in Mason, Ohio. Photo is from his previous position in the southeastern United States.**

*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](mailto: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.

## ANSWER

*From page 17*

This incident occurred when the person who submitted the photo was working at a college in the southeastern United States. On this baseball field, they hosted a travel baseball tournament over a weekend and the assistant manager of athletic fields told the coaches he couldn't paint the foul lines in until the morning of the first game. One of the graduate assistants took it upon himself to "help out" by preparing the field the night before to save time in the morning. Since there were no lines in the grass, he just guessed where the foul line would meet the dirt and painted this line with aerosol paint on the infield. The next day, after the crew had a good laugh, they raked the line out and re-dragged the infield and base path. After watering in the dirt, they ran a string to the correct spot and had him repaint the line. The issue was fixed prior to the teams showing up for the first game of the tournament, and nobody knew it had even happened. If you noticed the blue line, this is an additional line they would paint 10 yards off the foul line for players to warm up on, so they don't destroy the foul line. To spread the wear, they would also move the blue line for each tournament.

## MOST VALUABLE PLAYER

*For games that matter.*



**Ready-to-use Paint Tote System  
saves time, money, space,  
and reduces waste.**

***We make the games look better.***

**WorldClassPaints.com | 1.800.748.9649**



# All-around Excellence

*How SSC and Murray State achieve fields and grounds success*



Murray State University (Murray, Ky.) and the SSC Services for Education grounds department were honored as a 2022 Grand Award Winner for a Green Star Award by the Professional Grounds Management Society (PGMS) in the Athletic Complex – University category. The award highlights the work done on the natural and synthetic playing surfaces at Murray State for baseball, softball, soccer, football, track and field, and tennis.

SSC has partnered with Murray State since 2020, and provides grounds management and custodial services for its campus. Prior to 2020, those duties were handled in house by Murray State staff.

“With the addition of SSC in 2020, we have been able to put more expertise into our management of athletic turfs and playing surfaces,” stated Jason Youngblood, director of facilities management at Murray State. “The resources that SSC brings to Murray State allow us to provide the safest and most visually appealing playing fields for our athletes and their competitors.”

Peter Reimnitz, grounds manager, SSC Services for Education at Murray State University, said the relationship between SSC and Murray State works extremely well, is open and integrated, and boasts strong communication.







According to Reimnitz, the SSC team features 21 crew members handling just the grounds, and another 80 handling custodial services throughout campus. For grounds management, SSC has a landscaping crew, athletic crew and mowing crew on site. For the athletic fields and facilities, SSC manages the natural grass soccer, softball, baseball and intramural fields, as well as the synthetic turf football field, track and field surface, and hard-court tennis facility.

### **MURRAY STATE ATHLETIC SURFACES**

The Murray State softball field, Racer Field, sits on what used to be the football practice field. To help the turf, the field was core and shatter tine aerated four times throughout the summer to give the 419 bermudagrass base the best chance to form a dense turf for the playing season. When the field is overseeded, the entire field is seeded with a higher rate because of its small size. This helps with wear, and gives a uniform appearance from the stands.

According to SSC, Racer Field drains well – sometimes too well. This leads to localized dry spots on the field that have to be treated differently. Wetting agents are applied to the field to help hold water in the rootzone, and different retention agents are applied to the localized dry spots that remain. The SSC team also uses organic fertilizer and other carbon and biochar products to help increase the moisture-holding capacity of the soil.

Cutchen Field is home to the Racers soccer team. Preseason meetings with the coach led to a goal of a tightly cut, firm, and fast field for Murray State's extremely fast soccer team. The field is used for games and practice and sees an enormous amount of wear. According to SSC, the amount of water dictates the aerification, fertilization and irrigation programs. The field is mown with a reel mower at 0.5 inches for most of the year. Combinations of different growth regulators are applied every other week to keep the field as tight as possible and reduce clippings. All clippings are recycled into the canopy to increase organic matter in the rootzone and reduce reliance on fertilizers.

Soccer games are free for the public to attend, and fans can just find a seat on the surrounding hill to watch. To keep the surrounding turf as healthy as possible, this hill is aerated multiple times a year and receives a similar cultural program as the field. This provides a quick recovery after spectator use. The surrounds of the fields are mown using electric zero-turns, and electric handheld equipment is used for detailing.



Reagan Field, home to the Murray State baseball team, is a 419 bermudagrass base, but all scheduled games are played on overseeded ryegrass. According to Reimnitz, the baseball field is built on top of the old county landfill and also sits in the bottom of a valley. This has resulted in a field with varying drainage or moisture-retention challenges. One standard practice is to apply penetrant wetting

agents to help force water through the soil.

“The field is not the best-draining field,” said Reimnitz. “But since I’ve taken over, we have not had a single game cancelled due to field conditions.”

Providing a smooth, true surface on infield skins is an extremely important part of daily field preparations. An ABI Force infield machine is used with varying attachments to keep a uniform surface free of debris and imperfections.

Every one of Murray State’s athletic fields serves as both practice and game field for the respective sport. The university also hosts all camps and tryouts on those fields, as well as community events and camps for kids.

The football stadium is also home to track and field events, and the grounds team is responsible for all of the hardscapes and structures, which includes cleaning the stadium after each event. The current football field



surface is FieldTurf that was installed in 2015. According to Reimnitz, the plan is to replace the field within the next two playing seasons. In addition to grooming, the team also conducts annual GMAX tests on the field to ensure field compaction is within NCAA guidelines for field safety. Reports are shared internally and with the school with recommendations to make the field safer.

Murray State’s eight tennis courts are kept clean from debris daily and are ready for events at a moment’s notice.

“We are grateful for the incredible partnership and for the hard work of each of our dedicated SSC teammates,” stated Murray State Athletics Director Nico Yantko. “Their hard work and dedication help create a transformational experience for our Murray State student-athletes.”

The SSC grounds team also maintains Murray State’s landscape grounds, planting beds, tree care and mowing. Landscape and flower color designs are rotated four times per year, and include mums for fall homecoming and spring bulbs spring sports season.







## SUSTAINABLE PRACTICES

The Murray State University grounds team considers sustainability a core component of its program. Relieving compaction is a major part of their water management and conservation program. They also complete weekly inspections of the irrigation system to ensure water is not wasted. Strategies such as cycle soak and efficient nozzles and heads help reduce water use wherever possible. The team also applies wetting agents and uses natural, organic carbon sources for water capacity regulation.

The entire department is zero green waste. Any organic debris created by their work is either recycled directly into the soil or composted on campus for further use. The fertility program is heavy on organic fertilizer to reduce reliance on synthetic products. All pesticides are applied on an IPM program that is reviewed annually internally and with stakeholders.

For all athletic surrounds, electric zero-turns are used to reduce fuel consumption and carbon footprint. Electric Gators and handheld equipment further reduce the team's reliance on fossil fuels. For hedge clippers, chain saws, and hydraulic oil, a plant-based oil with zero petroleum is used. For any ice-control applications, a locally produced brine is utilized to limit salt usage. All non-selective weed control is conducted without the use of glyphosate, instead relying on OMRI-listed non-selective herbicides.

Overall, when it comes to winning the PGMS Green Star Award, Reimnitz said the recognition is good for SSC and for Murray State, because it demonstrates their ability to consistently produce high-level grounds. "There's nothing wrong with winning," Reimnitz added with a smile. **SFM**





# The UTV Market

*Analyzing today's utility vehicle trends*



By Glenn Hansen

Kawasaki introduced its Mule utility vehicle brand in the 1980s; it was way more functional than the once-popular three-wheeler and far easier to use than a pickup or tractor. It didn't take long for competitors to field new vehicles, and for entrepreneurial owners to improve them. Although Kawasaki has updated its Mule family, today's utility vehicle stable is full of a wide variety of thoroughbreds, mustangs and Clydesdales — from beefed-up golf carts to wanna-be pickup trucks, the list of utility vehicles and manufacturers is long.

The vehicle market continues to grow, making it difficult to define and quantify. However, based on information from various market research groups, as well as discussions I've had with analysts, industry experts predict a compound annual growth rate that ranges from three to nearly five percent between now

and 2027. If so, that would grow the North American UTV market to an estimated \$5 billion or higher.

In a survey we conducted to learn about the intent of vehicle shoppers, we found that 31.8% are currently looking and expecting to purchase a powersports vehicle in 6 months, and another 18.2% are thinking about looking but not planning to make a purchase in 6 months. Thirty-four percent of all respondents are looking to purchase a UTV, and are willing to spend \$26,000 on that purchase.

In general, original equipment manufacturers (OEMs) have in recent years put increased emphasis on UTV development. Honda, one of the late comers to the UTV market, now offers 13 different models. Kawasaki now offers at least nine unique Mule vehicles, plus its Teryx line of work/play UTVs. A similar shift is happening with Polaris, Yamaha, and Can-Am. (Four-wheel ATV pioneer Suzuki never officially entered the UTV market; it does still sell ATVs.)



The UTV market is much broader than just the historical ATV players, with more utility-focused companies offering work/sport UTVs. John Deere once sold ATVs that were manufactured for the company by Can-Am; it stopped selling those vehicles in 2006 and continues to market an increasingly broad range of Gator UTVs. Manufacturers including CF Moto, HiSun, American Landmaster, Kubota, Kioti and more serve power-equipment retailers with utility vehicles.

UTV manufacturers are offering an increasing number of vehicles at a range of price points and packages. As varied as these vehicles are, they seem to be moving in the same direction, and that is toward versatility for both work and play. Let's look at some specific trends in the UTV arena today.

### ELECTRIFICATION

The power shift is not coming; it's already here. Electric UTVs are real and can offer advantages for users. While Polaris gained a lot of media attention when it introduced the Ranger Kinetic UTV in 2022, the first production run was limited and interested shoppers nationwide continue to wait for units to hit dealerships.







Meanwhile, both American Landmaster and Intimidator UTVs sell electric UTVs right now.

At its facility in Indiana, Landmaster produces UTVs covering a spectrum of price points, with a couple lithium-ion powered units joining a fleet of gas-powered UTVs. Intimidator, based in Arkansas and purchased by Toro in 2022, makes mid-size and full-size UTVs and offers an electric model that runs on eight 6-volt sealed lead-acid batteries instead of lithium-ion batteries more commonly found in newer EVs. These 6-volt batteries are easy for vehicle owners to source and replace (for around \$200 each).

Also in the coming-soon category, the Volcon Stag is an electric recreation-focused UTV that could be available later this summer. The Volcon UTV will be powered by an “electric propulsion system” sourced through a partnership with General Motors. The Stag comes with a long list of high-end features, as well as a \$40,000 MSRP.

As is true with the electric car and truck market, several manufacturers are hinting at future electric-vehicle introductions into the UTV industry. Can-Am, maker of the Can-Am Defender UTVs, recently

introduced an electric touring-focused snowmobile, and has shown electric motorcycle concepts. Honda recently announced a corporate restructuring that puts an emphasis on EV design, though that focus could be directed at the much larger car and truck market.

#### **VERSA-UTILITY**

Each UTV manufacturer has a strength, a unique character, and a design position that can be seen in its products. That vehicular personality can be what attracts users to any of these machines. John Deere Gator UTVs, for example, align with the manufacturer’s tractors. Most of the green-and-yellow machines are pure workhorses. And even the company’s “crossover” utility vehicles have a utilitarian attitude. Unique to the market, Deere offers a Gator XUV with HVAC controls in its cab, and owners can equip this machine with the same Auto Trac found on Deere tractors for precision work in the field.

Kubota calls its utility vehicles “RTVs” and categorizes them into residential, commercial, and agricultural groups. Unique to the UTV market, Kubota





equips some of its machines with a hydrostatic transmission more commonly found in tractors. That will appeal to some buyers accustomed to the singular performance of hydro transmissions. You can also buy a Kubota with a belt-operated CVT.

The Kawasaki Mule has aged well and grown into a highly versatile fleet of vehicles. From sports field management to parking lot security to ranch maintenance, Mules are among the most popular vehicles that few people ever see — because these machines are always at work and

are often customized to match a company's fleet or brand color. Kawasaki makes Mules in two-, three-, four-, or six-passenger configurations, including diesel-powered models.

Can-Am tends to set its design sights on trail-riding performance, but the company's Defender UTVs have a work-ready side. The Defender 6x6 UTV is a six-wheel drive machine that can tackle nearly any terrain and carry a large load too.

Honda has a reputation for making vehicles high on creature comfort and intuitive user experience. Its Pioneer UTVs, for example, feature a dual-clutch transmission that offers both automatic operation and push-button manual shifting. With no belt, this transmission gives the UTV engine-compression braking that a more common belt-drive UTV can't match.

### VALUE OPTIONS

While many UTVs sell for \$25,000 or more, there are options for half that, and a few with MSRPs under \$10,000. CFMoto, a manufacturer based in China with a growing list of vehicles for sale in the U.S., offers its U-Force utility vehicle for around \$10,500. And the familiar Cub Cadet brand, whose UTVs are made in China by HiSun Motors, sells its Challenger 500 UTV for just under \$12K.

### ACCESSORIES AND UPGRADES

What makes UTVs so useful for owners, and so profitable for retailers, is the ever-expanding accessory market. Like in the growing attachment market for the small-tractor category, UTV add-ons and accessories help owners personalize vehicles and maximize their use for work or play.

While recreational UTV owners love aftermarket tires and wheels, utility users can find aftermarket cabs, plows, winches, storage options, lighting upgrades and more. Back to our survey data, we found that 47 percent of ATV and UTV shoppers are interested in customizing their vehicles. The top accessories of interest are tires (40 percent of buyers), lights (32 percent), and engine upgrades (18 percent). While that last category might seem focused on sport or trail riding performance, engine upgrades go beyond just horsepower. Users with big loads to carry might alter engine-power curves to deliver more torque. **SFM**

*Glenn Hansen is editor of OPE Business magazine, and contributing editor of PowerSports Business magazine, sister publications to SportsField Management.*

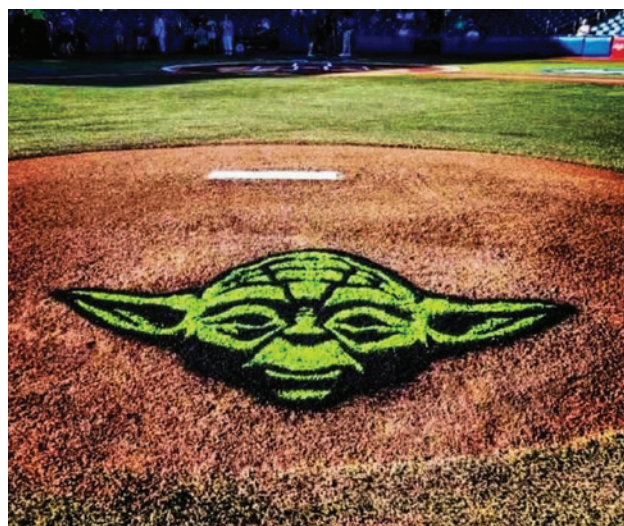


The following are some industry Tweets from the past month. Follow us @SportsField\_Mag.



**@Zona\_TURFlete**

Game 1 of the #Pac12Softball tournament today. The crew has done an amazing job keeping the field in great shape. The bar has been set high for the next coming years. @pac12



**@TurfaceC**

When your groundskeeper is a nerd and your front office decides to have a Star Wars game promotion. "Always pass on what you have learned" – Yoda



**@SportsTurfSun**

Second Friday night in a row on the snow shovel trying to keep up clearing lines. Colorado "spring," gotta love it! Sure looks cool in the lights. #BestOffice #INeedMoreCardio



**@CycloneTurf**

@cycloneSCR stadium field renovation from synthetic to natural turf project started this week. Thanks to @IowaSportsTurf for their great work. Excited to have more natural turf! More pics and updates to come as we progress.





@Mike\_Kerns\_

Concert flooring has been down for 7 days now and grass is starting to grow through our pedestrian flooring. Looks like we took a seeder through it.



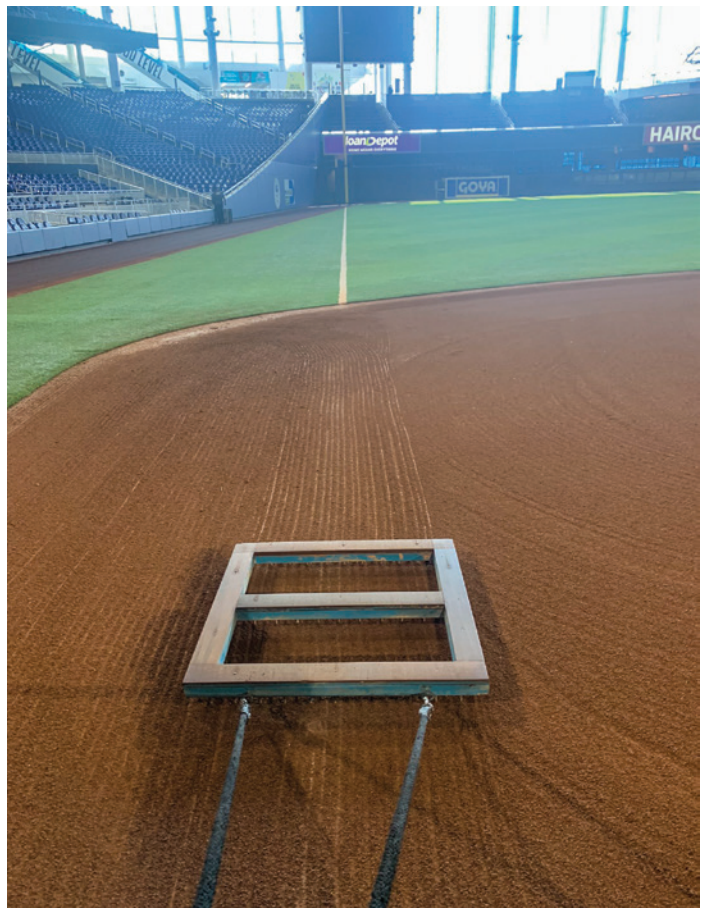
@joshdejongcsfm

Great @ColoradoSFMA event today. Thank you to @TannerCoffman2 and his crew for hosting.



@levineturf

Between softball & baseball, game 91/91 on the year. Appreciative of the crews efforts all spring. #MothersDay #Swoop



@miamiturf305

Blessed to spend my mornings doing something that brings me satisfaction





**@AaronFink4**

Back-to-back games. Time to call in the reinforcements! Pups at the Pitch at Lynn Family Stadium. Lou City vs Miami at 7:00PM and on ESPN2.



**@tylerm047**

Monster Jam 2023, what a wild event, one event closer to NFL season



**@GroundsKeeperKG**

Happy Mother's Day to all the mothers from the #groundscrew #Athletics #HappyMotherDay #attheColiseum @Athletics @MLB



**@ajmiller86**

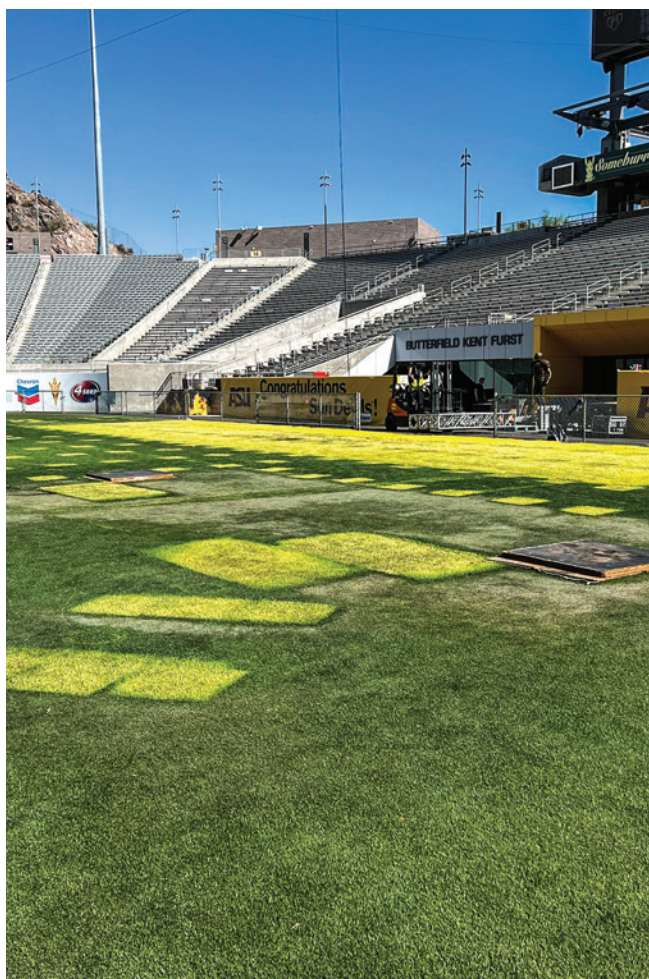
After years of topdressing, it's time to start raising irrigation heads. Only around 51 more to go.





@AustinUaturf

It's good to see red again!



@ASUGroundsCrew

Ever wonder what Sun Devil Stadium looks like after having a stage on it for 7 days for graduation week?



@nickhat75

Renovations started @Official\_HUFC Scarify today with overseed and topdressing to follow.



@PollockLandscap

Getting the Bama practice fields ready to grow in for the year. Sprigging 1,200 gabu/acre @SodSolutions



## West Coast Turf launches Ready Play Grass

West Coast Turf is introducing its new line of Ready Play Grass natural grass sod grown on plastic for instant use.

"We have been growing sod on plastic for several years," said West Coast Turf's Arizona Operations General Manager, Jay Danek. "We are confident in the product we've developed over that time and wanted to bring Ready Play Grass to a bigger market. There is a need for a grass surface that can be used right away.

"The reason its grown on plastic is for the strength of the plant itself," Danek added. "Similar to when you buy a plant at a nursery where the roots are bound in a ball since they can't go through the plastic. It makes the strength of the sod three to four times of what a normal sod field is by becoming root-bound. The intertwining roots develop a tight mat of rhizomes to firm up the surface, giving it a sturdy base of strength. It weighs about 18 pounds per square foot and can be grown up to two inches thick. After the sod is put down, it is not going anywhere. You can play on it instantly."

Ready Play Grass is ideal for sports fields, golf course tees and driving ranges and on top of artificial turf fields when a temporary natural grass field is required.



## Kubota adds new models to ZD Series and F Series

Kubota Tractor Corporation introduced the ZD1611 zero-turn mower and F3710 front-mounted mower.

The ZD1611 replaces the ZD1511 in Kubota's ZD Series, and features a 30.8-hp. Kubota Common Rail System (CRS) diesel engine that delivers power, torque and reliable performance. The ZD1611 is available in three deck configurations: a 72-inch side-discharge mower, and 60- and 72-inch rear-discharge mowers. The ZD1611 features an air-ride suspension seat with reclining and lumbar support that can be adjusted with the touch of a button. A 12V power outlet conveniently placed in the cup holder allows for the charging of electronic devices.

The F3710 replaces the F3990 in Kubota's F Series, and is equipped with a 36.9-hp. Kubota CRS diesel engine.

Available with both side-discharge and rear-discharge pro-commercial mower decks in 60 inches and 72 inches, the F3710's high lifting capacity provides the versatility to handle an array of implements like a grass catcher, snow blower, rotary sweeper and debris blower, and is compatible with all implements currently available for Kubota mowers. An LCD digital panel comes standard on the F3710. A deluxe high-back seat with four separate adjustments helps keep operators comfortable and productive all day long.



## Husqvarna unveils 525i battery series

Husqvarna launched its 525i battery series product line, which features a string trimmer and two dedicated edgers. All 525i battery series products are equipped with a Husqvarna E-Torq motor, which supplies the power needed to meet the performance of 25cc petrol equivalents while exceeding them in torque. A metal skid-plate over the gearbox protects the machine from daily wear and tear and accidental drops. All-day comfort is also top of mind as each machine includes ergonomically placed rubber grips for a more comfortable workday. Additionally, the series is IPX4 certified for weather resistance so users can operate the equipment rain or shine.

■ The 525iLST string trimmer is a robust, high-performance professional battery grass trimmer that's designed for full-time use, complete with an 18.1" cutting diameter.

■ The 525iES straight-shaft edger has an 8" standard steel blade which provides the ability to cut clean, crisp lines in the grass and dirt against solid perimeters.

■ The 525iECS curved-shaft edger features a blade speed that's nearly double that of a straight edger, making it an ideal tool for lighter-duty edging. The offset design also gives the operator a better view of the blade. **SFM**





## PGMS opens registration for 2023 annual conference, “Transform”

Grounds managers from across the country will have the opportunity to “Transform” themselves, their teams and their organizations during the Professional Grounds Management Society’s (PGMS) 2023 Annual Conference, “Transform,” taking place in Louisville, Kentucky, Oct. 17-20, 2023.

Transform is a four-day event that provides opportunities for high-level grounds management education, networking, and access to the industry’s largest tradeshow, Equip Exposition. The schedule includes three keynote programs, multiple networking sessions, and the annual awards celebration. New this year is the Women’s Forum Luncheon and Panel Discussion, sponsored by Hunter Industries.

This year’s education includes:

- “Don’t Undersell the Importance of Grounds Management” presented by George Bernardon and Tom Lapp
- “Grounds Management in a Facility Management World” presented by James Kaufmann
- “Allyship & Leading Inclusively: Building a Ground-Breaking Culture” panel presentation with Meg Smolinski, Sun Roesslein, CSFM, and Warren Gorowitz. Moderated by Paula Sliefert
- “Impact Leadership – Develop Talent, Create a Sense of Purpose & Build a Culture People Love” presented by Betsy Allen-Manning
- “Designing and Maintaining Safe, Creative and Healthy Landscapes” panel presentation with Phil Richey, John Swintosky, and Chris Vetick. Moderated by Roger Conner, CGM
- “Beech Leaf Disease: A Threat to the ‘Queen of the Forest,’ the American Beech” presented by Andrew Loyd
- “Using the Past to Reveal the Present: Identification and Special Management of Legacy Landscape Features” presented by Michael Gaige
- “Field Problem Solving” presented by Mike Goatley and Gregg Munshaw
- “Illuminated Spaces: A Study in Outdoor Evening Gatherings at Classic Destinations” presented by Mark Oxley and Matt Meiklejohn
- “Keys to Developing a Geographically Authentic Plant Palette” presented by Stephanie Krull, CGM
- “Sharing Data Effectively: How to Turn Information into Impact” presented by Bobbi Nance
- “Creative Problem Solving When Faced with Budget Constraints” presented by Steve D’Amato



■ “Understanding Stormwater Best Management Practices and Conservation Landscapes” presented by Jason Swope, CBLP

■ “Optimizing the Workforce” presented by Patti Weiter  
 “Transform education sessions have been designed to provide thoughtful discussion with solution-oriented takeaways to ensure grounds professionals of all levels have the opportunity to learn, engage and explore over four days of education and networking,” said 2023 Education Chairperson, Michael Gildea, CGM. “The committee’s focus has been to design a new conference experience that recognizes the breadth of knowledge our members need to run successful grounds operations.”

PGMS will also provide four enhanced education sessions as an Equip Exposition Education Partner:

- “It’s Not About the Paycheck” presented by Jeff McManus, Director of Landscape Services, Ole Miss University & Trainer with the Jeff McManus Group
  - Spanish language education session “Selección de una Agencia de Empleo que le Combene Mejor a su Compañía” presented by Mary Abbott, Owner/Manager with Mow Beta! Mowing and Snowplowing.
  - “Landscape Design Toolbox” presented by Stephanie Krull, Landscape & Grounds Manager
  - “National Turfgrass Trialing Program: Helping You Choose the Right Turf” presented by Kelly Kopp, Professor/Extension Specialist with Utah State University.
- “Transform” attendees will also have access to Equip Exposition, featuring the latest industry equipment, services and technology. Attendees can enjoy the 30-acre outdoor demonstration yard to test the newest industry equipment.

Registration to attend “Transform” is open to grounds professionals of all industries and experience levels, and early registration is recommended.

More information can be found at: <https://pgms.org/page/2023AnnualConf>. **SFM**





# TURFTIME

## EQUIPMENT

Great **Turf** in less **Time**  
with the right **Equipment**

---



### ADVANTAGE

Topdressers

---



### HEAVY DUTY

DUMP TRAILERS

---



### THATCH MASTER

*The classic  
Dethatcher/  
verticutter*

**[www.TurfTimeEq.com](http://www.TurfTimeEq.com)**  
**800-201-1031**



**PRECAST CONCRETE BUILDINGS**

**BUILT STRONG TO LAST**

**EASI-SET®**

**BUILDINGS**

Concessions • Dugouts • Press Boxes  
Restrooms • Locker Rooms  
Ticket Booths Storage & more!

**FAST**  
**ECONOMICAL**  
**VERSATILE**  
**DURABLE**  
**SECURE**



**EASIBUILDINGS.COM**

**540.439.8911**

**FREE QUOTE!**

**INSTALLS IN HOURS, LASTS FOR DECADES**

# BEAM CLAY®

THE STANDARD OF EXCELLENCE!

- ◆ Infield mixes, mound clays, and red warning tracks for every state from regional plants nation-wide
- ◆ Over 10,000 sportsfield products for ALL SPORTS!
- ◆ SPECIAL CO-OP PRICING FOR ALL 50 STATES!



**BEAM CLAY® INFIELD MIXES**

*Available Nationwide from the:  
Northeast, Midwest, South & West*

**800-247-BEAM** (2326)

*[sales@beamclay.com](mailto:sales@beamclay.com) | [www.BeamClay.com](http://www.BeamClay.com)*



**WE WANT  
TO HEAR  
FROM YOU!**

**VISIT THE WEBSITE TO START EARNING.**

**MYVOICEREWARDS.COM**

**MY VOICE  
REWARDS**

**ANSWER SURVEYS.  
EARN REWARDS.  
FAST. FUN. EASY.**



# SUBSCRIBE TODAY!

[sportsfieldmanagementonline.com/subscribe](http://sportsfieldmanagementonline.com/subscribe)

Online | Print | Mobile | E-Newsletter | Facebook | Twitter

# SportsField

MANAGEMENT

## SFMA Affiliated Chapters Contact Information

**Sports Turf Managers Association of Arizona:** [www.azstma.org](http://www.azstma.org)

**Colorado Sports Turf Managers Association:** [www.cstma.org](http://www.cstma.org)

**Florida #1 Chapter (South):**  
305-235-5101 (Bruce Bates) or  
Tom Curran, [CTomSell@aol.com](mailto:CTomSell@aol.com)

**Florida #2 Chapter (North):**  
850-580-4026,  
[John.Mascaro@turf-tec.com](mailto:John.Mascaro@turf-tec.com)

**Florida #3 Chapter (Central):**  
407-518-2347, Dale Croft,  
[dale.croft@ocps.net](mailto:dale.croft@ocps.net)

**Gateway Sports Field Management Association:**  
[www.gatewaystma.org](http://www.gatewaystma.org)

**Georgia Sports Turf Managers Association:** [www.gstma.org](http://www.gstma.org)

**Greater L.A. Basin Chapter of the Sports Turf Managers Association:**  
[www.stmalabasin.com](http://www.stmalabasin.com)

**Illinois Chapter STMA:** [www.ILSTMA.org](http://www.ILSTMA.org)

**Intermountain Chapter of the Sports Turf Managers Association:**  
<http://imstma.blogspot.com>

**Indiana:** Contact Clayton Dame,  
[Claytondame@hotmail.com](mailto:Claytondame@hotmail.com) or  
Brian Bornino, [bornino@purdue.edu](mailto:bornino@purdue.edu)  
or Contact Joey Stevenson,  
[jstevenson@indyindians.com](mailto:jstevenson@indyindians.com)

**Iowa Sports Turf Managers Association:**  
[www.iowaturfgrass.org](http://www.iowaturfgrass.org)

**Keystone Athletic Field Managers Org. (KAFMO/STMA):** [www.kafmo.org](http://www.kafmo.org)

**Mid-Atlantic STMA:** [www.mastma.org](http://www.mastma.org)

**Michigan Sports Turf Managers Association (MiSTMA):** [www.mistma.org](http://www.mistma.org)

**Minnesota Parks and Sports Field Management Association:** [www.mpsfma.org](http://www.mpsfma.org)

**MO-KAN Sports Turf Managers Association:** [www.mokanstma.com](http://www.mokanstma.com)

**Nebraska SFMA**  
<https://nebraskaturfgrass.com/nesfma>

**New England STMA (NESTMA):**  
[www.nestma.org](http://www.nestma.org)

**Sports Field Managers Association of New Jersey:** [www.sfmanj.org](http://www.sfmanj.org)

**North Carolina Chapter of STMA:**  
[www.ncsportsturf.org](http://www.ncsportsturf.org)

**Northern California STMA:**  
[www.norcalstma.org](http://www.norcalstma.org)

**Ohio Sports Turf Managers Association (OSTMA):** [www.ostma.org](http://www.ostma.org)

**Oklahoma Chapter STMA:**  
405-744-5729; Contact:  
[Dr.Justin.Moss.okstma@gmail.com](mailto:Dr.Justin.Moss.okstma@gmail.com)

**Oregon STMA Chapter:**  
[www.oregonsportsturfmanagers.org](http://www.oregonsportsturfmanagers.org)  
[oregonstma@gmail.com](mailto:oregonstma@gmail.com)

**Ozarks STMA:** [www.ozarksstma.org](http://www.ozarksstma.org)

**Pacific Northwest Sports Turf Managers Association:** [www.pnwstma.org](http://www.pnwstma.org)

**Southern California SFMA:**  
[www.socalsfma.com](http://www.socalsfma.com)

**South Carolina Chapter of STMA:**  
[www.scstma.org](http://www.scstma.org)

**Tennessee Valley Sports Field Management Association (TVSFMA):**  
[www.tvstma.org](http://www.tvstma.org)

**Texas Sports Turf Managers Association:**  
[www.txstma.org](http://www.txstma.org)

**Virginia Sports Turf Managers Association:** [www.vstma.org](http://www.vstma.org)

**Wisconsin Sports Turf Managers Association:** [www.wstma.org](http://www.wstma.org)

Chapter Sponsors

# Hunter®



## JOHN DEERE



# Perennial Ryegrass

**Q:** What are your thoughts on using perennial ryegrass on athletic fields?

**A:** Perennial ryegrass (*Lolium perenne* L.) is the predominant cool-season sports turf grass. It was originally introduced to the U.S. as an amenity grass, forage grass, and for soil erosion control; and we've been successfully using turf-types since the 1960s. Although perennial ryegrass is revered in Europe, it is somewhat suffered in the U.S. The distaste for perennial ryegrass as a sports turf grass has always perplexed me, since I know just how great it can perform as a sports surface. It does have its challenges, but I believe its pros outweigh its cons. Let's delve deeper in a point-counterpoint format:

**Point:** It is a bunch-type grass, and therefore does not have the capability to spread laterally. **Counterpoint:** Ryegrass is a prolific producer of tillers, and provides great sward density — particularly if mowed at the lower end of the preferred height of cut (1-2"). In studies conducted at Ohio State over many years, ryegrass has had recuperative potential as good as Kentucky bluegrass or tall fescue under traffic. In addition, it is very wear tolerant, and persists during heavy traffic.

**Point:** Because it is a bunch-type grass, fields must be constantly overseeded. **Counterpoint:** There is no such thing as an athletic field that doesn't need to be constantly overseeded, regardless of turf type. On native soils, where traffic and compaction are commonplace, all cool-season turfgrasses need regular overseeding to keep fields playable and safe.

**Point:** It is slippery. **Counterpoint:** It is shiny on the underside of the leaf, which makes it look wet from a distance.

**Point:** It has poor heat, drought and cold tolerance. **Counterpoint:** Like bluegrass and tall fescue, it is a cool-season grass, and prefers air temperatures of 60-75° (15-24°C) and soil temps of 50-65°F (10-18°C). In extreme conditions, it may not be as heat and drought tolerant as tall fescue, or as cold tolerant as bluegrass, but it will survive in most areas.

**Point:** It is susceptible to grubs. **Counterpoint:** Like many other turfgrasses, it is susceptible to grubs. However, many perennial ryegrass cultivars contain endophytes that prevent attack from surface-feeding pests.

**Point:** It is difficult to mow in spring when flower stems are forming. This can result in poor mowing quality. **Counterpoint:** Modern cultivars and sharp mower blades greatly reduce or eliminate this problem.

**Point:** In fall and spring, ryegrass does not mix well with other grasses. The color is different, and the clumps of ryegrass stand out. **Counterpoint:** Ryegrass staying green longer into the fall/early winter and greening up quickly in spring is a major advantage for sports turf managers with fall or spring sports. Masking color differences can be achieved by applications of PGRs, iron or nitrogen fertilizers, choosing bluegrass cultivars with short winter dormancy, or spraying the field with a green dye in early spring. Some turf managers may also cover the field with a growth blanket to promote uniform spring growth.

**Point:** Ryegrass takes over the field like a weed. **Counterpoint:** The number-one reason it does so well is its ability to germinate and establish quickly. The ability to grow quickly means it can shade out the bluegrass and prevent seed germination and establishment.

**Point:** Perennial ryegrass is susceptible to a whole host of turfgrass diseases. **Counterpoint:** Yes, it is. No arguing on this point. If the conditions are favorable for a disease attack, ryegrass is prone to get it. Turf managers need to be extremely vigilant with summer applications of irrigation and nitrogen, and choose cultivars that have shown improved disease resistance. Where possible, especially on game fields, preventative applications of fungicide may be required. As a side note, however, because it is so quick to grow, it can sometimes survive a disease such as damping off much more successfully than slower-growing species. **SFM**



**Pamela Sherratt**

Sports turf extension specialist  
The Ohio State University

## Questions?

Send them to Pamela Sherratt at 202D Kottman Hall, 2001 Coffey Road, Columbus, OH 43210 or sherratt.1@osu.edu

Or send your question to Dr. Grady Miller, North Carolina State University, Box 7620, Raleigh, NC 27695-7620, or grady\_miller@ncsu.edu



# Cover All *YOUR BASES.*

Score a home run in sports field construction



WWW.STECEQUIPMENT.COM

(888) 325-2532

@STECEQUIP     

**STEC**  
EQUIPMENT





# 365ss<sup>®</sup>

## KENTUCKY BLUEGRASS BRAND

EXCELLENT WEAR  
TOLERANCE

HIGH TURF  
QUALITY

RAPID  
ESTABLISHMENT

SUPERIOR DISEASE  
RESISTANCE

*"365ss thrives in Reno. The bounce back from wear-and-tear is incredible. It more than handles our hot, dry summers and makes a great canvas for all our wild pattern ideas"*

Leah Withrow | Greater Nevada Field, Reno Aces

We Believe in Better | 503.588.7333 | [MTVIEWSEEDS.COM](http://MTVIEWSEEDS.COM)

