

IN THIS ISSUE: College Soccer FOY: University of Portland  
THE OFFICIAL PUBLICATION OF THE **SPORTS TURF MANAGERS ASSOCIATION**

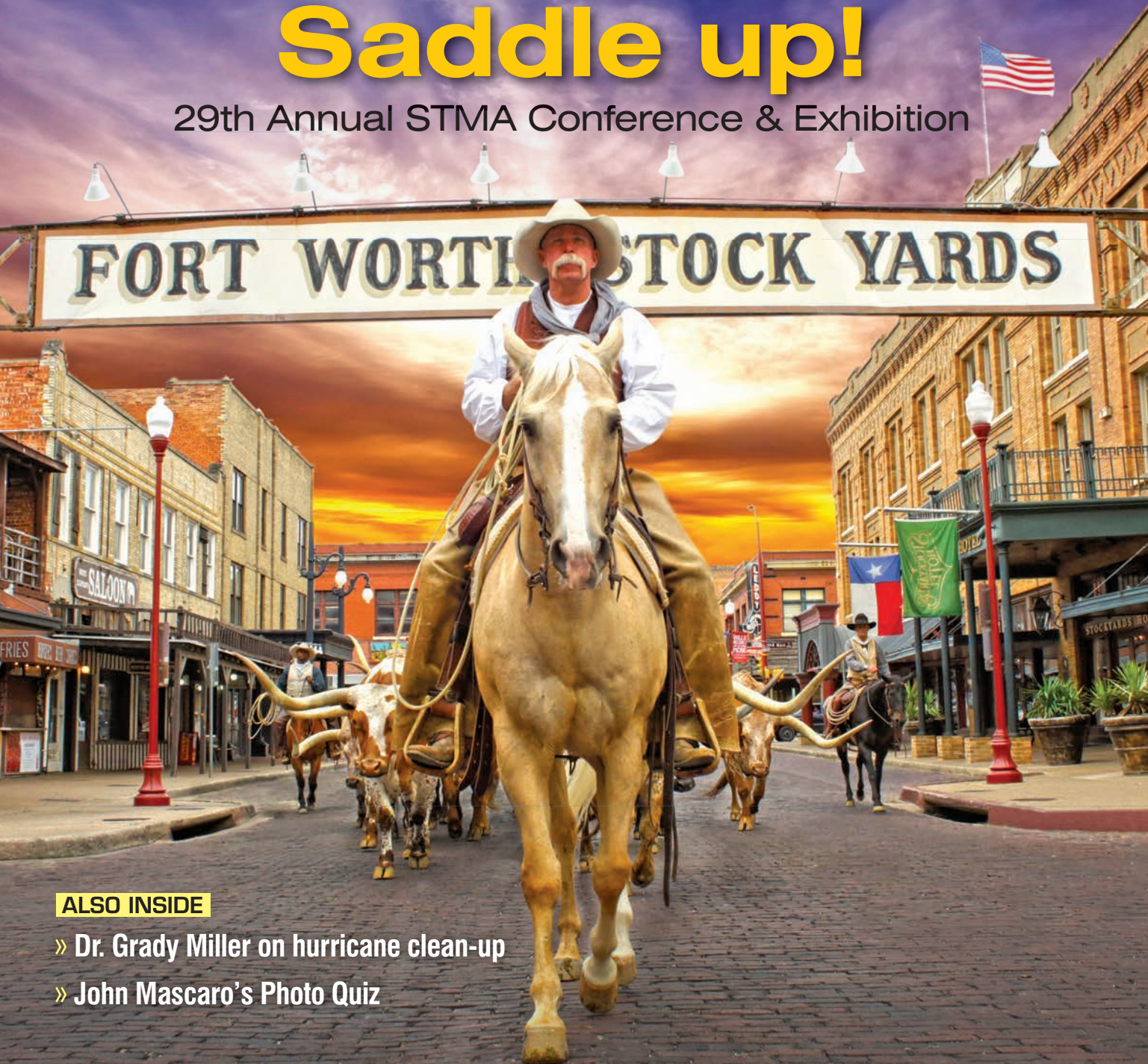
# SportsTurf

NOVEMBER 2017

SPORTS FIELD AND FACILITIES MANAGEMENT / [www.sportsturfonline.com](http://www.sportsturfonline.com)

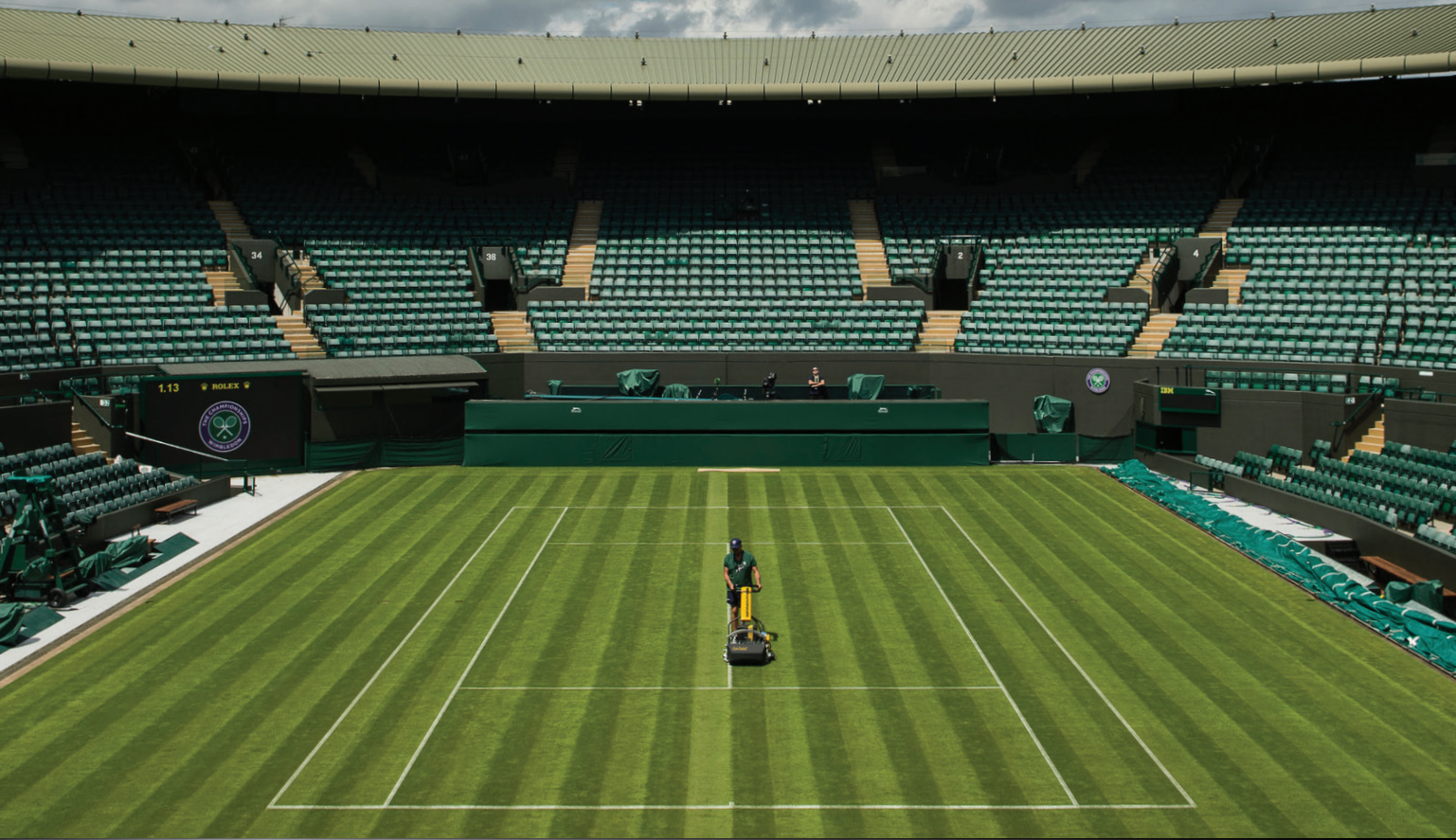
## Saddle up!

29th Annual STMA Conference & Exhibition



### ALSO INSIDE

- » Dr. Grady Miller on hurricane clean-up
- » John Mascaro's Photo Quiz



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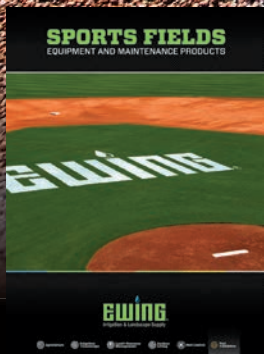
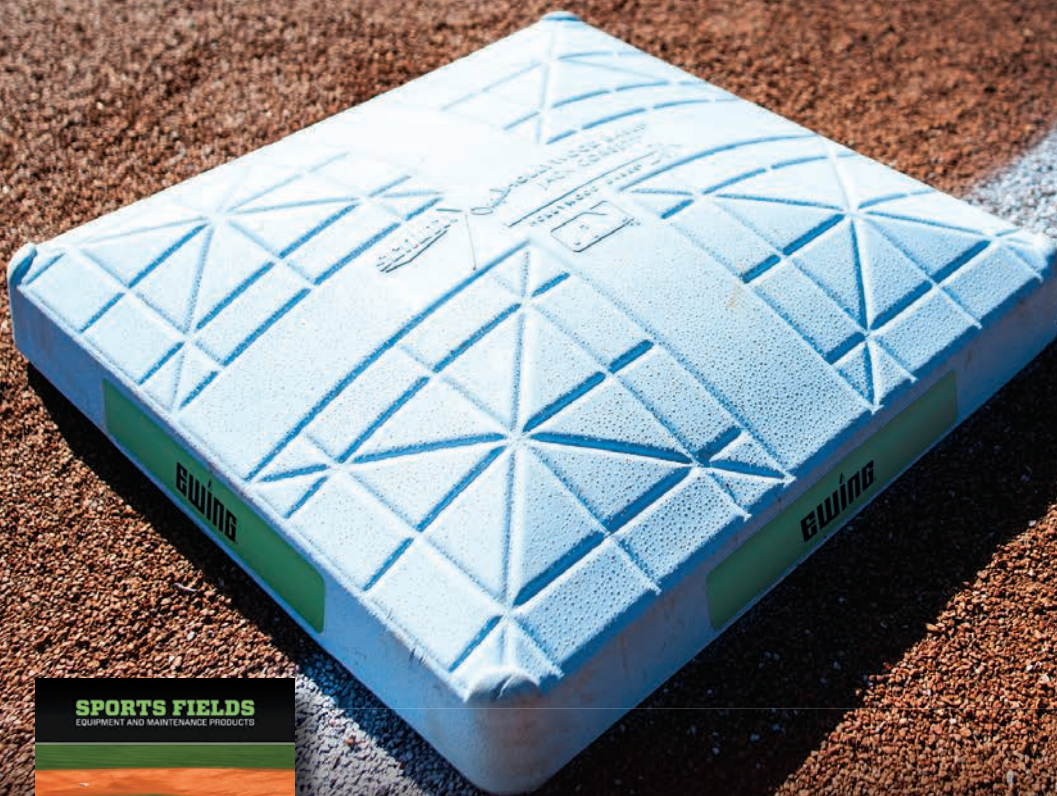
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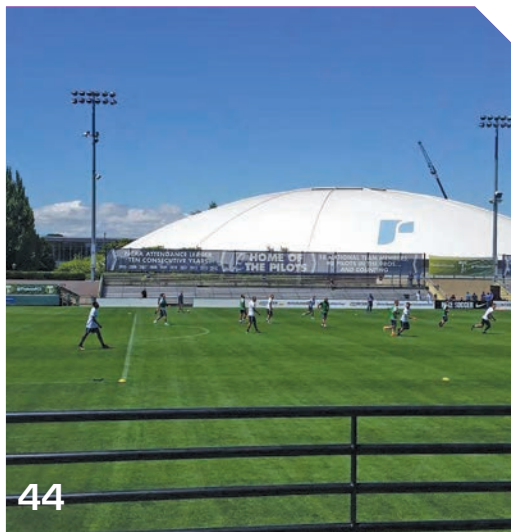
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## FEATURES

### 29TH SPORTS TURF MANAGERS ASSOCIATION CONFERENCE AND EXHIBITION PREVIEW

- 8 *History of Fort Worth and Things to Do*
- 12 *Conference Programs: Seminars, Education Sessions & other activities*
- 14 *Schedule-At-A-Glance*
- 28 *Optional Events*
- 31 *Registration Details*
- 32 *List of STMA Commercial Members and others exhibiting in Fort Worth*

### OFF THE FIELD

- 11 *Hiring seasonal employees*
- 42 *How do new turf industry products come to be? Part I*

### 2016 FIELD OF THE YEAR

- 44 *College Soccer: Merlo Field, University of Portland*

## DEPARTMENTS

- 6 *From the Sidelines*
- 7 *STMA President's Message*
- 17 *John Mascaro's Photo Quiz*
- 46 *STMA in Action*
- 48 *Marketplace*
- 50 *Q&A*

## ON THE COVER

pg 8



On the cover: Welcome to Cowtown, Where the West Begins. The 29th Sports Turf Managers Association Conference and Exhibition will be held in Fort Worth, TX January 16-19 at the Fort Worth Convention Center. For registration information see page 31.

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## FROM THE SIDELINES

# Modesty one defining STMA trait



Eric Schroder / Editorial Director / [Eschroder@epgmediallc.com](mailto:Eschroder@epgmediallc.com) / 763-383-4458

**WE DEDICATED SOME PAGES** in last month's issue to the 2016 STMA Field of the Year for Schools/Parks Baseball winner, Will Rogers, CSFM, and "The Nest" in Clover, SC. After seeing a proof of the article, Will asked for one change: would I please move his name from its own line and put it with the names of his staff? His request is emblematic of one of STMA's greatest strengths – its members' modesty. While most folks are rightfully proud of their crews and fields, spend any time at an STMA event and you'll hear a lot more collaborating and commiserating than bragging.

Speaking of which, this issue includes all the information you need to know about the STMA Conference, January 16-19, in Fort Worth. This international show is the only one of its kind, bringing the best and brightest in the industry from around the globe together. Kim Heck and her staff at STMA HQ, as well as show company Marketing & Events, are to be commended for producing quality shows year after year.

## Better than the front row

Target Field in Minneapolis opened in 2010 and Larry DiVito has been the head groundskeeper since. Lucky for me the Twins were on the road while I was in Minnesota last summer and my hosts arranged for me to get onto the field and see Larry, who was keeping one eye on folks setting up for a dinner on the field that night honoring the 1987 team that won the World Series.

It's easy to see why up-and-coming sports turf managers might aspire to work at the highest levels of the profession after seeing the set-up that Larry enjoys – plenty of room to store



Larry DiVito, left, in the crew's break room with Eric Schroder.

supplies, a large and nearly spotless equipment space, not to mention a well-equipped and convenient break room for his crew.

If you've never had the opportunity to get this kind of close-up experience at a "Big League" facility, I urge you to sign up for one of the Seminar on Wheels tours at the STMA Conference coming up in Fort Worth, where stops include AT&T Stadium, home of the Dallas Cowboys. Touring these facilities never gets old. **/ST/**

# SportsTurf

// November 2017

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## PRESIDENT'S MESSAGE

# Let them lead



Tim Van LOO / CSFM / STMA President / vanlooti@iastate.edu / @cycloneturf

**NOVEMBER – ALMOST DONE** with 2017 sports seasons. Many of you experience a break once we get into the winter months, assuming you have winter. This time of year I look forward to the slower pace of winter. For me it is the season I can coach my kids' basketball, I can consistently be home for dinner "on time," and not stress about upcoming events. November is like the last 3 miles of a marathon: you are tired, hungry, and need some rest. I encourage you to all finish the marathon still running; do not walk or limp to the end.

I titled this message "Let Them Lead" because of some recent events in my professional career. As many of you know, I have the privilege of employing turfgrass students from Iowa State's turf program. I truly cannot do my job without the relationship I have with the turf program on campus. I call those who work for me "my crew," which is false. They are loaned to me from the turf program to help me prepare our athletic fields. The only benefit to them is a little spending money and experience. Sure, the money is nice, but the experience in the end is far more important. The hard part for me is to place them into situations that prepare them to be better than me when they leave Iowa State.

I think it is important for each of us who manage people to understand that we do not have all the answers. It is also our responsibility to prepare our staff to either be able to take our place someday, or move on and take a similar position somewhere else. I hear all the time that this new generation of workers isn't very good. I would challenge each of us to ask the question a different way: Are we as managers allowing this generation to flourish? I could make the argument that the generation that works for me is outstanding. I have recent graduates who are now managing large sports complexes, Division I facilities, and professional football.

We have great fields at Iowa State University, but I get far more satisfaction seeing my past student employees finding success in the industry I love. Their success is not because of me. Their success is because they took opportunities that were in front of them. It is our job as managers to put our new employees, students, and future leaders into positions where they have to lead. Some might be reluctant or scared to lead, but you have to allow it to happen. There is no greater compliment for a manager than to watch employees grow into leaders and become managers themselves.

The STMA offers many resources at the national Conference on managing people. We also have plenty of resources within our website to help you as a manager succeed in building the next generation turf managers. Please let me or STMA headquarters know if there is anything we can do to assist you. **/ST/**

@cycloneturf



Photo courtesy of Fort Worth Convention and Visitors Bureau

## WELCOME TO FORTH WORTH, “WHERE THE WEST BEGINS”

### History of Fort Worth

The fertile, game-rich land surrounding the banks of the Trinity River had long been a favorite hunting ground for Native Americans in the area, but it soon proved irresistible to settlers as well. In 1843, Sam Houston came to what was then called Fort Bird or Bird's Fort and remained more than a month, awaiting chiefs from different tribes to discuss a peace parley. Houston departed, leaving Gen. Edward

H. Tarrant and George W. Terrell to meet with the chiefs. When the tribes came to the negotiating table, a treaty was made under which the Native Americans were to remain to the west of a line traced passing through the future site of Fort Worth. The line marked “Where the West Begins” – giving Fort Worth its famous slogan.

Birdville was the largest town and the seat of Tarrant County in the 1850s. Many settlers, however, already had moved into

the area surrounding the Fort Worth outpost. When the troops left, residents converted the military buildings into schools, stores and churches.

Ambitious Fort Worth residents soon called a courthouse election, sparking a bitter campaign. In 1873, with a population of 500, the citizens decided that Fort Worth should incorporate.

Great herds of Longhorns were driven from Texas to the railheads in Kansas and



Fort Worth was on the main route, the Chisholm Trail. Lowing herds camped near the town, and cowboys galloped into Fort Worth, firing their pistols into the air and even riding their horses into the saloons. The red-light district that sprang up, one of the most infamous and the basis for many visions of the Wild West, came to be known as "Hell's Half Acre."

Though indulging the vices of Chisholm Trail cowboys that gave the town a less-than-angelic reputation, legitimate business poured into the area to serve the drovers as well. Fort Worth became the trading point for the whole northwest region. Joseph H. Brown, a native of Scotland, opened a store and, in nine years, it was the largest wholesale grocery south of St. Louis. It was not unusual for this "prince of grocers" to have 30 carloads of flour and 20 of bacon en route at a time. The arrival of the railroad changed Fort Worth from a waypoint along the cattle trail to the goal of the drives.

**THE YEARS BETWEEN THE  
WORLD WARS CONTINUED THE  
EXPLOSIVE GROWTH OF  
BUSINESS AND SAW THE  
CONSTRUCTION OF MANY OF  
THE CITY'S MOST VALUABLE  
ARCHITECTURE.**

The first Fat Stock Show was held in 1886; a storm arrived for the first night of the show and the next morning the cattle were coated with sleet as they hunched under live oak and pecan trees. Though the location changed to accommodate its growing size, the Fort Worth Stock Show and Rodeo has endured for more than a century and, as the first indoor rodeo, has

served as a model for such events around the world.

A combination of war and oil gave Fort Worth its next great impetus. World War I broke out in 1914 and, three years later, the Canadian government established three flying fields in the vicinity of Fort Worth. The mild climate made year-round training possible. When our nation entered the war, the fields were taken over by the US; Camp Bowie was built here in 1917 at a cost of more than \$3 million.

One of the most important events in the history of Fort Worth occurred 90 miles away when oil was discovered in the small town of Ranger, followed by discoveries in other towns around Fort Worth. The town, strategically located between areas where oil was discovered, experienced an oil boom, too. Even before the rush, Fort Worth had three refineries. By the late summer of 1920, five others had been built, with four more under way. This, along with a network



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The years between the World Wars continued the explosive growth of business and saw the construction of many of the city’s most valuable architecture.

During World War II, a Quartermaster Depot, Marine Air Base and the Fort Worth Army Air Field were constructed in Fort Worth. The establishment of Consolidated-Vultee’s aircraft plant on the shore of Lake Worth alongside the airfield was a milestone for the city. During the war, the mile-long plant produced more than 3,000 B-24 Liberator bombers, with a peak employment of 32,000. The facility would change hands over the years to various defense contractors and produce some of the world’s most important aircraft, including the B-36 Peacemaker and the F-16 Fighting Falcon.

The Army airfield was renamed Carswell Air Force Base in 1948, and became the headquarters of the 19th Air Division in 1951. B-52 bombers of the 7th Bomb Wing, a crucial piece of the U.S. nuclear arsenal during the Cold War and of Strategic Air Command, soon called Fort Worth home as well.

Carswell was repurposed as the Fort Worth Naval Air Station and Joint Reserve Base in the 1990s, but still connects Fort Worth to its military heritage in a time of diversification and growth.

More than 165 years of history have shaped Cowtown. Ranked the nation’s fastest growing city with more than 500,000 population, the 16th largest city in the country, Fort Worth has endured economic changes and retained its Western heritage as it continues to prosper.

### Things to do in Fort Worth

There are plenty of things to do in the City of Cowboys and Culture whether you want to hit every top attraction in the area or are looking for something more laid back, Fort Worth has you covered.

**Stockyards Championship Rodeo.** The world’s first indoor rodeo and only year-round rodeo in the world is held every Friday and Saturday night at the historic Fort Worth Cowtown Coliseum. The Stockyards Championship Rodeo maintains a strong commitment to

visitors looking for an authentic Western Cowboy experience. The 2-hour show features bull riding, tie down roping, team roping, barrel racing, bronc riding and break away roping.

### Modern Art Museum of Fort Worth.

Experience the world-renowned architect Tadao Ando’s “Arbor for Art.” The museum maintains one of the foremost collections of international modern and contemporary art in the country. See the work of Andy Warhol, Jackson Pollock, and Mark Rothko. Discover amazing contemporary works ... displayed in a serene concrete and glass building surrounded by a magnificent reflecting pond. Make the trip to see our special exhibitions and take a docent-led tour.

**Pawnee Bill’s Wild West Show.** An historical reenactment of the original Pawnee Bill’s Wild West Show, featuring trick roping, trick shooting, trick riding, cowboy songs and an entertaining look at history. The shows are based on actual events and stunts that occurred in the original Pawnee Bill’s Wild West Show that toured the country some 90 years ago. Wholesome entertainment for the entire family full of animals, spectacular performers with ropes, bullwhips, pistols and even a singing cowboy!

**Billy Bob’s Texas.** Billy Bob’s Texas is the world’s largest honky-tonk. The club has almost three acres under one roof with its own indoor rodeo arena for exciting live bull riding every Friday and Saturday, a Texas-sized dance floor, dozens of bar stations, a full restaurant featuring delicious favorites such as BBQ, Chicken Fried Steak, The Burning Bubba burger and more, a late night pizza kitchen, arcade games, a Wall of Fame with celebrity handprints, and a gift shop. At Billy Bob’s Texas, the mission is to deliver the world’s greatest honky-tonk experience and create lasting Texas memories.

**Sundance Square.** Downtown Fort Worth has gained a reputation as one of the country’s liveliest urban settings. The 35-square-block Sundance Square entertainment district is home to restaurants, live music clubs, theatres, shops, exciting nightlife and the beautiful Bass Performance Hall, named as one of the top 10 opera houses in the world. **/ST/**



# Hiring seasonal employees

// By ED HALL, CSFM

The hiring of seasonal or temporary labor can be a tremendous benefit if managed properly. The employment of seasonal labor can save considerable funds while filling many labor shortage problems. It also provides the opportunity for employees to gain experience and be evaluated for future promotion to full-time status.

The City of Bowie (MD) Parks Department had hired seasonal labor for many years but a few years ago began using this important employment tool to maximize its benefits.

When this program was begun many years ago, it was mainly to provide summer employment for the City's youth. And since it employed unskilled labor the pay scale was minimum wage. This approach was changed about 15 years ago because of a decline in interested applicants and the need to have employees later in the season. We created a two-tiered pay system, one for summer help and one for temporary labor. We currently employ eight to ten seasonal workers.

The summer help employees work from June through August and are typically

high school kids. The best of these are then recruited to return, and many work through college. They get an increase in pay every year they return. The temporary workers start in April and work through mid December and are paid at the same rate as an entry-level Parks employee but without benefits. Since we have changed our hiring procedures, we have had many more qualified applicants than positions. The program has worked so well that the current full time staff of 32 has had half of the employees make the transition from seasonal or temporary labor to full time. And when a vacancy does occur, it is almost always filled by a temporary staff member negating the need to go through the outside hiring process.

The work that is performed by summer help workers consists of working with various crews doing line trimming, refuse pick up, painting, planting flowers, and miscellaneous labor. Most of this work is performed by those that have never worked before and are learning what manual labor is all about. The work performed by temporary laborers would also consist of

working with an assigned crew operating mowers, line trimming, working in and around storm water management ponds and channels, ball field maintenance, and the bulk leaf program. These individuals typically are more mature and have worked for our department for more than one season or have an employment history in grounds maintenance.

We have had excellent success hiring retired individuals who are looking for employment in the milder weather months. They tend to have excellent work habits and can bring a wealth of knowledge and skills from their respective former careers that can have a very positive influence on younger staff members. It has never been more important than the current time to maximize the efficient use of labor of any type and the use of seasonal employees can give a grounds maintenance operation the required labor force to complete the many numerous and labor intense projects. **IST/**

*Ed Hall, CSFM, is superintendent, parks & grounds, for the City of Bowie, MD*



Photo courtesy of Fort Worth Convention and Visitors Bureau

## UNBRIDLE YOUR INNER COWBOY

**STMA 29<sup>th</sup> Conference & Exhibition, January 16-19, 2018, Fort Worth, TX**

Registration, all education sessions, and the trade show will be at the Fort Worth Convention Center, 1201 Houston St., Fort Worth, TX 76102

### ***Registration Hours***

<b>Mon., Jan. 15</b> .....	6:30 - 9 pm
<b>Tues., Jan. 16</b> .....	6:30 am - 5 pm
<b>Wed., Jan. 17</b> .....	7 am - 5 pm
<b>Thurs., Jan. 18</b> .....	7 am - 5 pm
<b>Fri., Jan. 19</b> .....	7 - 11 am

### ***Trade Show Hours***

<b>Thurs., Jan. 18</b> .....	1:30 - 6:30 pm
<b>Fri., Jan. 19</b> .....	10 am - 1 pm

### ***Who Should Attend***

- Sports Turf Managers, Assistants & Crew
- Students
- Stadium and Facility Managers
- Coaches & Athletic Directors
- Architects, Engineers & Field Builders
- School Business Officials
- Public Works Managers
- Physical Plant Administrators
- Directors of Parks & Recreation
- Suppliers to the Industry
- Others who are involved with Sports

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## Essential information

Register at [STMA.org](http://STMA.org) for the Lowest Prices!

## Airline Reservations

If you need help making travel arrangements, contact STMA's travel agency, WorldTek, at 800-233-5989.

## Airports

Two airports serve Fort Worth: Dallas Love Field, 34 miles from the convention center and Dallas/Fort Worth International, 24 miles away.

## Antitrust Policy

STMA supports competition and adheres to a policy of strict conformity to the spirit and letter of the antitrust laws. Pricing, sales terms, wages and any other competitive information should never be discussed at STMA's meetings.

## Attire

Business casual (slacks and a collared shirt for men and comparable apparel for women) is the preferred conference attire. Coat and tie is requested for the Awards Banquet on Friday. **Cutoffs, jeans, t-shirts, and ball caps are discouraged.**

## Banned Activities: Suitcasing & Outboarding

Suitcasing is when an attendee solicits business in the trade show aisles or other public spaces such as a hospitality suite or a restaurant. Also called outboarded events, these types of activities are detrimental to the exhibition. These are unethical business practices and will not be tolerated. To distribute information or conduct business, you must be an exhibitor. STMA has the right to remove anyone who violates this policy.

## CEUs & Pesticide Recertification Credits

CEUs will be available through ASBA, GCSAA, NRPA, PGMS, NALP, TNLA and TTA. Seven Structural CEUs and eight Agricultural CEUs are approved for Texas. If you are attending from another state and need pesticide recertification credits, you are responsible for contacting your state's Department of Agriculture for approval.

## Conference Recordings (FREE)

All full conference registrants receive FREE access to the education session recordings. Look for an email post-conference with the link and password.



Sundance Square Plaza

Photo courtesy of Fort Worth Convention and Visitors Bureau

## First-Time Attendees

Meet the STMA Board and your peers at a reception honoring you on Wed., Jan. 17, 6-7 pm. Enjoy hors d'oeuvres and a complimentary beverage. Be sure to wear your First-Time attendee ribbon for admittance.

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## Hotels

The Omni Hotel (\$189 per night, single or double), the Hilton Ft. Worth (\$169 per night, single or double) and the Sheraton Fort Worth (\$169 per night single or double) are the hotels serving the conference. To reserve your room, go to [STMA.org](http://STMA.org) and click on the hotel links.

## International Attendees

Meet the STMA Board and your peers at a reception honoring you on Wed., Jan. 17, 6-7 pm. Enjoy hors d'oeuvres and a complimentary beverage. Be sure to wear your International attendee ribbon for admittance.

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## New Members

If you are not a current STMA national member you are eligible to receive a FREE conference registration. New members must not have been a national member since 2000. Affiliate, Retired and Student memberships are not eligible for this program. Go to [STMA.org](http://STMA.org) to join as a new, first-time member. After the system recognizes you as a new member, you can register for the conference. STMA will only accept online registrations for those taking advantage of the free conference offer.

## Twitter

Follow us at [www.twitter.com/fieldexperts](http://www.twitter.com/fieldexperts); Tweet #STMA2018

## Weather

January's average high temperature is 57 degrees with a nighttime average low temperature of 33 degrees.

## SCHEDULE AT A GLANCE

### Mon., Jan. 15

6:30 - 9 pm Registration Open

### Tues., Jan. 16

6:30 - 8 am ..... Continental Breakfast  
6:30 am - 5 pm ..... Registration Open  
7 am - 4:15 pm ..... Seminar on Wheels Tours  
12 - 3 pm SAFE ..... Topgolf Event  
2:30 - 5 pm ..... Academy Education  
3 - 7 pm ..... STMA Certification Exam  
6 - 9 pm ..... SAFE Night of Bowling

### Wed., Jan. 17

6:30 - 8 am ..... Continental Breakfast  
7 am - 5 pm ..... Registration Open  
8 - 9:30 am ..... General Session  
9:45 am - 12 pm ..... Conference Education  
12:15 - 1:15 pm ..... Fun Run/Walk  
12 - 2 pm ..... Break  
12 - 2 pm ..... Women's Forum and Lunch  
2 - 5 pm ..... Conference Education  
5:15 - 6:15 pm ..... Networking Sessions  
6 - 7 pm ..... Chapter Board Members  
Networking and Reception  
6 - 7 pm ... First-timers and International Attendees Reception  
7:30 - 10 pm ..... Welcome Reception

### Thurs., Jan. 18

6:45 - 7:45 am ..... Certification Breakfast  
7 - 8 am ..... Continental Breakfast  
7 am - 5 pm ..... Registration Open  
8 - 10:45 am ..... Conference Education  
11 am - 1:15 pm ... Keynote Address/Annual Meeting/Lunch  
1:30 - 6 pm ..... SAFE Silent Auction  
1:30 - 6:30 pm ..... Exhibit Hall Open/Receptions  
2 - 4:30 pm ..... Student Challenge

### Fri., Jan. 19

7 - 8 am ..... Continental Breakfast  
7 - 9 am ..... Past Presidents' Breakfast  
7 - 11 am ..... Registration Open  
8 - 10 am ..... Conference Education  
10 am - 12:30 pm ..... SAFE Silent Auction  
10 am - 1 pm ..... Exhibit Hall Open/Lunch  
12:45 - 5 pm ..... Seminar on Wheels  
1:30 - 2:30 pm ..... Fun Run/Walk  
1:30 - 3 pm ..... Conference Education  
6:30 - 10 pm ... SAFE Live Auction/STMA Awards Reception  
and Banquet

### Sat., Jan. 20

8 am - 12 pm STMA ..... Certification Exam  
8 am - 1 pm ASBA ..... Certification Exam

## *Thank you to our sponsors!*

SAFE and STMA appreciate the support and commitment of our Conference sponsors. Please take a moment in the Exhibition Hall to thank these companies.



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**January 16-19, 2018 ★ Fort Worth, TX**

## EVENT HIGHLIGHTS



Photo courtesy of STMA

**Wed., Jan. 17**

### OPENING GENERAL SESSION

8 - 9:30 AM

#### **We Are All in This Together**

*Relationships Between Sports Field Managers and Athletic Directors*

**Speakers:** Weston Appelfeller, CSFM - Columbus Crew SC; Andy Loughnane - Columbus Crew SC; Andy Gossel - Covenant Christian High School; Megan VanArsdale - Boyle County Schools

Join us for discussion about how to establish and expand successful working relationships between sports turf managers and their supervisors and athletic directors, with a lively Q&A session following the presentation.

### NETWORKING SESSIONS

5:15 - 6:15 PM

Meet your peers in this facilitated session where you can share your issues and hear practical solutions. Each category of membership meets in separate rooms.

### CHAPTER BOARD MEMBERS HOT TOPICS & RECEPTION

6 - 7 PM

Chapter Board members are invited to a reception to meet fellow chapter leaders. The reception will feature a "Hot Topics" speed-session and discussion so that you can bring timely and relevant information back to your chapters.

*Sponsored by Hunter Industries, John Deere, Pioneer Athletics, Turface Athletics*

### FIRST-TIME ATTENDEE AND INTERNATIONAL ATTENDEE RECEPTION

6 - 7 PM

This reception honors our international attendees and new conference participants. Enjoy hors d'oeuvres and redeem a complimentary drink ticket. Appropriate ribbons must be worn for admittance.

*Sponsored by Atlas Turf, Platinum TE, Pure Seed, Sod Solutions*

"I thoroughly enjoyed last year's conference. The educational and professional networking opportunities that you have access to at this conference are exceptional. Attending last year's conference helped me take a step further in my career."

**-JOHN COOPER, TURF MANAGER, SWEETWATER LANDSCAPES**





# JOHN MASCARO'S PHOTO QUIZ

JOHN MASCARO IS PRESIDENT OF TURF-TEC INTERNATIONAL

////////

ANSWER ON PAGE 37

## CAN YOU IDENTIFY THIS SPORTS TURF PROBLEM?

**PROBLEM:**

Green area surrounded by irregular brown area

**TURFGRASS AREA:**

Multipurpose field

**LOCATION:**

Northern United States

**GRASS VARIETY:**

Bluegrass/Ryegrass mix



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Tommy Shook, Eagle Golf & Athletics Inc.



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# STMA CONFERENCE PREVIEW

## WELCOME RECEPTION

7 - 10 PM

Reconnect with old friends and meet new peers at this heavy hors d'oeuvres event. Drink ticket included.

*Sponsored by The Toro Company and Covermaster*

***Thurs., Jan. 18***

## KEYNOTE ADDRESS, ANNUAL MEETING & LUNCH

11 - 1:15 PM

**Everyone Counts Because Everyone Brings an Attitude, Energy and Enthusiasm**



**Speaker: Mark Johnson - Retired NCAA Division 1 Baseball Coach**

Mark Johnson has spent years speaking throughout the country and overseas. He will bring high energy and exhibit 41 years of coaching motivation. He will visit humorous topics concerning the "In's and Outs of Baseball" and the honored tradition of baseball "signs." Mark will inspirationally touch on subjects of adversity, pressure, vision, and 'risking-to-achieve.' At the end, he will ask you to get

off the sidelines and "let your light shine."

*Sponsored by World Class Athletic Surfaces*

***Thurs., Jan. 18 & Fri., Jan. 19***

## EXHIBITION & SILENT AUCTION

THURSDAY 1:30 - 6:30 PM (DESSERT AND LATE AFTERNOON RECEPTION)

FRIDAY 10 AM - 1 PM (LUNCH ON THE SHOW FLOOR)

See the latest products and innovations! Meet with product developers and company representatives to find out how their solutions can save you time, money and make you more productive.

Purchase items from our re-energized Silent Auction. Proceeds benefit the SAFE Foundation.

*Silent Auction sponsored by Pioneer Athletics*

***Fri., Jan. 19***

## AWARDS RECEPTION, BANQUET & SAFE LIVE AUCTION

6:30 - 10 PM

Support SAFE by bidding on equipment, technology and sports experiences during the pre-banquet reception. Then enjoy an elegant dinner immediately followed by the awards program. The presentation recognizes those who have achieved top honors in the industry. RSVP is required. Coat and Tie is the preferred attire.

Awards Program sponsored by Carolina Green, Ewing, Hunter and World Class Athletic Surfaces

*Pre-banquet reception sponsored by Pro's Choice*

# CONFERENCE TRACKS 2018

## TURFGRASS MANAGEMENT

***Wed., Jan. 17***

9:45 - 10:45 AM

**In Season Plant Growth Regulators: High Risk or High Reward?**

Keith Winter

11 AM - 12 PM

**Our Season with TifGrand**

Nick Fedewa

11 AM - 12 PM

**Establishing a Bermuda Field Without Irrigation**

Michael Skelton

3:30 - 5 PM

**Optimizing Bermudagrass Athletic Field Winter Survival in the Transition Zone**

Marcus Dean, CSFM, Gregg Munshaw, Ph.D.

***Thurs., Jan. 18***

8 - 9:15 AM

**Behind the Scenes: Recreational and Collegiate Athletic Field Management at the University of Florida**

Jason Kruse, Ph.D.

8 - 9:15 AM

**Topdressing and Cultivation for Your Athletic Fields - Part 1**

Nick Christians, Ph.D., Adam Thoms, Ph.D.

9:30 - 10:45 AM

**Topdressing and Cultivation for Your Athletic Fields - Part 2**

Nick Christians, Ph.D., Adam Thoms, Ph.D.

***Fri., Jan. 19***

1:30 - 3 PM

**In Season Plant Growth Regulators: High Risk or High Reward?**

Keith Winter



Lynda Wightman leading last year's Women's Forum

## PROFESSIONAL DEVELOPMENT

Sponsored by John Deere

### Wed., Jan. 17

8 - 9:30 AM

#### **Opening General Session - We Are All in This Together: Relationships Between Sports Field Managers and Athletic Directors**

Weston Appelfeller, CSFM, Andy Gossel, Andy Loughnane, Megan VanArsdale

9:45 - 10:45 AM

#### **'Professional' Turfgrass Management**

Michael Goatley, Jr., Ph.D.

2 - 3:15 PM

#### **Managing Stress and Avoiding Burnout**

Lisa Goatley, M.S., L.P.C.

3:30 - 5 PM

#### **Positive Coaching for Sports Turf Managers**

Josh McPherson, CSFM

### Thurs., Jan. 18

8 - 9:15 AM

#### **Professional Development: Necessary Steps in Your Career Advancement**

James Bergdoll, CSFM

9:30 - 10:45 AM

#### **Have You Prepared Your Staff for Success or Failure?**

Amy Fouty, CSFM

9:30 - 10:45 AM

#### **PR/Social Media Recognition: Why It's Important for Your Boss to Know!**

Glenn Gray, Tomás Silvani

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Photo courtesy of Fort Worth Convention and Visitors Bureau

*Water Gardens at dusk*

11 AM - 12 PM

**Keynote - Everyone Counts Because Everyone Brings an Attitude, Energy and Enthusiasm**

Mark Johnson

## **Fri., Jan. 19**

1:30 - 3 PM

**'Professional' Turfgrass Management**

Michael Goatley, Jr., Ph.D.

## **SYNTHETIC**

### **Wed., Jan. 17**

9:45 - 10:45 AM

**STC Guidelines for Synthetic Turf Base Systems**

Francois Hebert

11 AM - 12 PM

**Synthetic Field Management**

Matt Anderson, CSFM, Sarah Martin, CSFM, Doug Schattinger

### **Fri., Jan. 19**

8 - 10 AM

**Lightning Round - Safer Sports: How Science Meets Mother Nature, Trends & Technology**

Dan Sawyer

8 - 10 AM

**Lightning Round - Recycling, Repurposing, and Reusing Rubber Infilled Systems**

Darren Powers

## **INDUSTRY DEVELOPMENTS**

### **Tues., Jan. 16**

2:30 - 5 PM

**30 Years of Sports Turf Research - What Have We Learned?**

Trey Rogers, Ph.D.

### **Wed., Jan. 17**

9:45 - 10:45 AM

**Athletic Field Performance Testing**

Gerald Henry, Ph.D., Chase Straw

11 AM - 12 PM

### Beyond the Science, the Art of Sports Turf

Stephen Crockett, CSFM

3:30 - 5 PM

### Athlete Perception and Injury Risk Within Natural Turfgrass Sports Fields

Gerald Henry, Ph.D., Chase Straw

## Thurs., Jan. 18

8 - 9:15 AM

### Sports Turf Research Focusing on Athlete Performance and Safety

John Sorochan, Ph.D.

## Fri., Jan. 19

8 - 10 AM

### Lightning Round - Bluemuda: What Is It and Is It Right for You?

Brian Winka, CSFM

8 - 10 AM

### Lightning Round - Early Stress Detection Using Standard Cameras: Innovative Technology

Eyal Katz, Ph.D.

## PEST CONTROL

### Wed., Jan. 17

11 AM - 12 PM

### Warm Season Weed Control

James Brosnan, Ph.D.

3:30 - 5 PM

### Low Budget Weed Control

Jared Hoyle, Ph.D., Jay McCurdy, Ph.D.

### Thurs., Jan. 18

9:30 - 10:45 AM

### Turfgrass Insects

Gary Brooks

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† Relative to most large backpacks. In accordance with ANSI 175.2 standard.



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Take the chore out of the chore with Billy Goat!

# STMA CONFERENCE PREVIEW



Photo courtesy of STMA

*Silent Auction benefitting SAFE Foundation*

9:30 - 10:45 AM

## Understanding Dislodgeable Foliar Residues and Optimizing Pesticide Applications

Travis Gannon, Ph.D.

## RENOVATION

**Wed., Jan. 17**

2 - 3:15 PM

### Renovating a Collegiate Baseball Field in Multiple Phases

Jon Fitch

3:30 - 5 PM

### In with the New: BMPs for Regrassing Cool-Season Turf

Michael Buras, CSFM, John Inguagiato, Ph.D.

**Fri., Jan. 19**

8 - 10 AM

### Panel Discussion - Cool-Season Field Renovation

Leah Brilman, Ph.D., John Inguagiato, Ph.D., Brad Park, Pamela Sherratt

8 - 10 AM

### Lightning Round - Recognizing the Depletion of Multi-Use Parks and Green Spaces

Peter Auth

## FACILITY MANAGEMENT

**Tues., Jan. 16**

2:30 - 5 PM

### Should Financing & Leasing be a Part of Your Acquisition Strategy?

Paul Danielson, CSE, Tim Borger, Dean Whitehead

"I attended the STMA Conference because I wanted to see another side of the green industry. With the chance to compete in a knowledge-based challenge I learned a lot in my preparation. Attending the conference allowed me to expand my knowledge, network, and enjoyment in the green industry. "

**-ADAM HASTRITER, STUDENT FROM BYU 2017 STUDENT CHALLENGE TEAM**

## Wed., Jan. 17

2 - 3:15 PM

### **Budgets Cuts - Are You Prepared to Justify?**

Roger D. Havlak

2 - 3:15 PM

### **Facility Liability and Lawsuit Prevention**

Patrick McGuinness

3:30 - 5 PM

### **Multiple Sports on Fields and Multiple Locations of Schools**

Danny Foye, Jr., Kevin Morgan

## Thurs., Jan. 18

8 - 9:15 AM

### **Asking the Tough Questions**

Grady Miller, Ph.D.

8 - 9:15 AM

### **Making Better Weather-Based Management Decisions**

Brad Jakubowski

9:30 - 10:45 AM

### **John Mascaro's Photo Quiz Comes Alive**

John Mascaro

## Fri., Jan. 19

8 - 10 AM

### **ASBA Panel Discussion - Analyzing and Comparing Bid Specifications: An Apples to Apples Comparison**

James Catella, PE, Michael Gentile, Craig Honkomp

8 - 10 AM

### **Panel Discussion - When Disaster Strikes: A Guide to Manage, Recover & Prepare**

Kim Bybee, Amy Fouty, CSFM, Bruce Suddeth, Mason Ward

## **SOIL SCIENCE**

## Wed., Jan. 17

9:45 - 10:45 AM

### **Sports Field Drainage - Problems and Solutions**

Speaker: Andrew McNitt, Ph.D.

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# STMA CONFERENCE PREVIEW

9:45 – 10:45 AM

## The Importance of Managing Soil Moisture on Athletic Fields

Kyley Dickson, Ph. D.

11 AM – 12 PM

## The Ups and Downs of Soil pH Modification

Nick Christians, Ph.D.

2 – 3:15 PM

## Athletic Field Drainage from Design to Maintenance

Thomas Rychlik, P.E., LEED-AP

2 – 3:15 PM

## Advanced Soil Science for the Sports Turfgrass Professional

Bryan Hopkins, Ph.D.

## ***Fri., Jan. 19***

1:30 – 3 PM

## Athletic Field Drainage from Design to Maintenance

Thomas Rychlik, P.E., LEED-AP

# CONFERENCE LEARNING SESSIONS

## STMA SHORT COURSES

### ***Tues., Jan. 16***

2:30 – 5 PM

#### 1. Should Financing & Leasing be a Part of Your Acquisition Strategy?

Speakers: Paul Danielson, CSE - The Toro Company; Tim Borger - TCF Equipment Finance; Dean Whitehead - Christopher Newport University

#### 2. 30 Years of Sports Turf Research - What Have We Learned?

Speaker: Trey Rogers, Ph.D. - Michigan State University

### ***Wed., Jan. 17***

8 – 9:30 AM

#### Opening General Session

#### We Are All in This Together: Relationships Between Sports Field Managers and Athletic Directors

Speakers: Weston Appelfeller, CSFM - Columbus Crew SC; Andy Gossel - Covenant Christian HS; Andy Loughnane - Columbus Crew SC; Megan VanArsdale - Boyle County Schools

9:45 – 10:45 AM

#### 1. Sports Field Drainage - Problems and Solutions

Speaker: Andrew McNitt, Ph.D. - Penn State University

#### 2. 'Professional' Turfgrass Management

Speaker: Michael Goatley, Jr., Ph.D. - Virginia Tech

#### 3. In Season Plant Growth Regulators: High Risk or High Reward?

Speaker: Keith Winter - Fort Wayne TinCaps

#### 4. STC Guidelines for Synthetic Turf Base Systems

Speaker: Francois Hebert - Design & Solutions for Sports Surfaces F.H Ltd (DSSS)

#### 5. The Importance of Managing Soil Moisture on Athletic Fields

Speaker: Kyley Dickson, Ph. D. - University of Tennessee

#### 6. Athletic Field Performance Testing

Speakers: Gerald Henry, Ph.D. and Chase Straw - University of Georgia

11 AM – 12 PM

#### 1. Beyond the Science, the Art of Sports Turf

Speaker: Stephen Crockett, CSFM - City of Union City, Tennessee

#### 2. Warm Season Weed Control

Speaker: James Brosnan, Ph.D. - University of Tennessee

#### 3. Synthetic Field Management

Speakers: Matt Anderson, CSFM - The University of Arizona; Sarah Martin, CSFM - City of Phoenix, Parks and Recreation Department; Doug Schattinger - Pioneer Athletics

#### 4. Our Season with TifGrand

Speaker: Nick Fedewa - SMG Jacksonville/Jaguars

#### 5. Establishing a Bermuda Field Without Irrigation

Speaker: Michael Skelton - Culpeper County Parks and Rec

“The STMA conference is a one-stop shop for beginning, intermediate, and advanced sports turf and field maintenance. You can attend presentations on basic turf care, baseball field prep 101, or listen to the latest research on cultivar resiliency. This is a must-attend conference for anyone in the industry.”

**-PENN ALMONEY, MPA, SPORT FIELDS & PROGRAMS MANAGER, PROVO PARKS & RECREATION**



## 6. The Ups and Downs of Soil pH Modification

Speaker: Nick Christians, Ph.D. - Iowa State University

2 - 3:15 PM

### 1. Managing Stress and Avoiding Burnout

Speaker: Lisa Goatley, M.S., L.P.C. - The Cascade Group

### 2. Athletic Field Drainage from Design to Maintenance

Speaker: Thomas Rychlik, P.E., LEED-AP - Gewalt Hamilton Associates, Inc.

### 3. Renovating a Collegiate Baseball Field in Multiple Phases

Speaker: Jon Fitch - Shive-Hattery, Inc.

### 4. Budgets Cuts - Are You Prepared to Justify?

Speaker: Roger Havlak - City of San Angelo / Angelo State University

### 5. Advanced Soil Science for the Sports Turfgrass Professional

Speaker: Bryan Hopkins, Ph.D. - Brigham Young University

### 6. Facility Liability and Lawsuit Prevention

Speaker: Patrick McGuinness - Zlmen and McGuinness, Attorneys at Law

3:30 - 5 PM

### 1. Optimizing Bermudagrass Athletic Field Winter Survival in the Transition Zone

Speakers: Marcus Dean, CSFM and Gregg Munshaw, Ph.D. - University of Kentucky

### 2. Multiple Sports on Fields and Multiple Locations of Schools

Speakers: Danny Foye, Jr. and Kevin Morgan - Duval County School Board

### 3. Athlete Perception and Injury Risk Within Natural Turfgrass Sports Fields

Speakers: Gerald Henry, Ph.D. and Chase Straw - University of Georgia

### 4. In with the New: BMPs for Regrassing Cool-Season Turf

Speakers: Michael Buras, CSFM - Longwood Cricket Club; John Inguagiato, Ph.D. - University of Connecticut

### 5. Low Budget Weed Control

Speakers: Jared Hoyle, Ph.D. - Kansas State University; Jay McCurdy, Ph.D. - Mississippi State University

### 6. Positive Coaching for Sports Turf Managers

Speaker: Josh McPherson, CSFM - University of Missouri

5:15 - 6:15 PM

### STMA Networking Sessions

Meet with your peers during this formalized networking session. Each category of membership meets separately to share issues and practical solutions.

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## ***Thurs., Jan. 18***

8 - 9:15 AM

### **1. Professional Development: Necessary Steps in Your Career Advancement**

Speaker: James Bergdoll, CSFM - City of Chattanooga Department of Public Works

### **2. Sports Turf Research Focusing on Athlete Performance and Safety**

Speaker: John Sorochan, Ph.D. - University of Tennessee

### **3. Asking the Tough Questions**

Speaker: Grady Miller, Ph.D. - North Carolina State University

### **4. Behind the Scenes: Recreational and Collegiate Athletic Field Management at the University of Florida**

Speaker: Jason Kruse, Ph.D. - University of Florida

### **5. Making Better Weather-Based Management Decisions**

Speaker: Brad Jakubowski - Penn State University

### **6. Topdressing and Cultivation for Your Athletic Fields - Part 1**

Speakers: Nick Christians, Ph.D. and Adam Thoms, Ph.D. - Iowa State University

9:30 - 10:45 AM

### **1. Have You Prepared Your Staff for Success or Failure?**

Speaker: Amy Fouty, CSFM - Michigan State University

### **2. John Mascaro's Photo Quiz Comes Alive**

Speaker: John Mascaro - Turf-Tec International

### **3. Turfgrass Insects**

Speaker: Gary Brooks - Bayer

### **4. Understanding Dislodgeable Foliar Residues and Optimizing Pesticide Applications**

Speaker: Travis Gannon, Ph.D. - NC State University

### **5. PR/Social Media Recognition: Why It's Important for Your Boss to Know!**

Speakers: Glenn Gray and Tomás Silvani - Buffalo Agency

### **6. Topdressing and Cultivation for Your Athletic Fields - Part 2**

Speakers: Nick Christians, Ph.D. and Adam Thoms, Ph.D. - Iowa State University

11 AM - 12 PM

### **Keynote - Mark Johnson - Retired NCAA Division 1 Baseball Coach**

*Everyone Counts, Because Everyone Brings an Attitude, Energy, and Enthusiasm*

## ***Fri., Jan. 19***

8 - 10 AM

### **1. ASBA Panel Discussion - Analyzing and Comparing Bid Specifications: An Apples to Apples Comparison**

Speakers: James Catella, PE - Clark Companies; Michael Gentile - Sports Labs USA; Craig Honkomp - Sportworks Field Design

### **2. Panel Discussion - Cool-Season Field Renovation**

Speakers: Leah Brilman, Ph.D. - DLF Pickseed USA; John Inguagiato, Ph.D. - University of Connecticut; Brad Park - Rutgers University; Pamela Sherratt - The Ohio State University

### **3. Panel Discussion - When Disaster Strikes: A Guide to Manage, Recover & Prepare**

Speakers: Kim Bybee - City of Carrollton; Amy Fouty, CSFM - Michigan State University; Bruce Suddeth - University of South Carolina Upstate; Mason Ward - City of Carrollton

### **Lightning Rounds**

#### **■ Bluemuda: What Is It and Is It Right for You?**

Speaker: Brian Winka, CSFM - Advanced Turf Solutions

#### **■ Recognizing the Depletion of Multi-Use Parks and Green Spaces**

Speaker: Peter Auth - Santa Clara Unified School District

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### Student Challenge

- **Early Stress Detection Using Standard Cameras: Innovative Technology**

Speaker: Eyal Katz, Ph.D. - GrassFocus Ltd.

- **Safer Sports: How Science Meets Mother Nature, Trends & Technology**

Speaker: Dan Sawyer - Brock USA

- **Recycling, Repurposing, and Reusing Rubber Infilled Systems**

Speaker: Darren Powers - Redexim Turf Products

## REPEAT SESSIONS

1:30 - 3 PM

- 1. 'Professional' Turfgrass Management**

Speaker: Michael Goatley, Jr., Ph.D. - Virginia Tech

- 2. In Season Plant Growth Regulators: High Risk or High Reward?**

Speaker: Keith Winter - Fort Wayne TinCaps

- 3. Athletic Field Drainage from Design to Maintenance**

Speaker: Thomas Rychlik, P.E., LEED-AP - Gewalt Hamilton Associates, Inc.

"I attend STMA's annual conference each year because it provides students the unique opportunity to network with industry professionals, build connections with fellow students from other turf programs at universities across the nation, and educate themselves of the new products and innovations that will impact on the future of the sports turf industry."

**-SEAN MCLAUGHLIN, STUDENT FROM MT. SAN ANTONIO COLLEGE**



Joe T's Patio Fountain

Photo courtesy of Fort Worth Convention and Visitors Bureau

## OPTIONAL OFFSITE EVENTS

### TopGolf, Bowling, Tours

The STMA conference offers several off-site, optional activities: three on Tuesday and one on Friday.

### Tues., Jan. 16

#### Full Day Seminar on Wheels

7 AM - 4:15 PM

Participants will travel to AT&T Stadium, formerly Cowboys Stadium. It has a retractable roof and serves as the home of the Dallas Cowboys. The second stop is Ford Center at the Star, which is a state of the art indoor athletic facility shared by the Dallas Cowboys, the City of Frisco and

Frisco ISD high schools. The Next, tour Toyota Stadium and Toyota Soccer Center, where participants will hear about management practices for the 18 fields and view the concert stage and tunnel load-in areas. The final stop will be Dr Pepper Ball Park, home to the Texas Rangers affiliate, the Frisco RoughRiders.

Lunch and transportation included. Cost is \$65

*Sponsored by Bush Turf*

#### Topgolf - A fundraiser for the SAFE Foundation

12 - 3 PM

Right around the corner from the convention center is TopGolf's newest facility and the host for our afternoon

"The reason I have been attending STMA events for over 30 years has been the educational sessions, the opportunity to trade ideas with others in the industry and most importantly the friendships I have been able to establish. The members of the STMA are my other family and I have been so blessed to be a part of this great organization."

**-MIKE SCHILLER, CSFM, RET., PAST PRESIDENT OF STMA**

golf event. Board the shuttle for a quick ride and enjoy an afternoon of food, drinks and "target" golf, using micro-chipped golf balls. STMA will have dedicated TopGolf staff to assist with setting up the game in each bay and make club recommendations. Participants hit the ball and within seconds of it landing the video screen shows you your driving distance, which target you hit, and how many points you made. Players will be playing in a tournament play environment as individuals. There are up to 6 players per "bay" area - so if you wish to have players placed together, please let us know! First, second and third place winners will receive prizes. Pricing will be \$135 per person, with clubs, food and drink ticket included.

*Sponsored by Diamond Pro and Carolina Green; Supporting Sponsors Vescio's Sports Fields and Little League International*

### Night of Bowling - A fundraiser for the SAFE Foundation

Now in its fourth year, SAFE will hold its Bowling Event at Brunswick Westcreek Lanes. Sign up with fellow chapter members or other friends and bowl as teams or register individually and be placed on a team. Cost is \$75 and includes transportation, dinner and drinks,

*Title Sponsor: FIELDS, Inc. Drink Sponsor: Beacon Athletics*

## Fri., Jan. 19

### Half-Day Seminar on Wheels

12:45 - 5 PM

The tour starts with the baseball-only Globe Life Park, home to the Texas Rangers. The asymmetrical playing field has an irrigation system that allows the entire outfield to be watered from one station. The complex includes a four-story office building at center field, a 12-acre lake and parks and recreation perimeter space. The final stop is TCU's athletic facilities including the new soccer complex and sand-based football field. Weather (and time) permitting participants will see the baseball field, which was previously a golf course, and the track and field areas.

*Sponsored by Bush Turf*

### On-site Optional Events

Run/Walk, Women's Forum and Certification Testing

### FUN Run/Walk

WED., JAN. 17, 12:15 - 1:15 PM

FRI., JAN. 19, 1:30 - 2:30 PM

Join your fellow runners and walkers for outdoor recreation through historic downtown Fort Worth. Led by member Tom Nielsen with the Louisville Bats.

## The Best Dressed Sports Fields Start Out In Our Hands.



Major League Baseball. National Football League. Major college programs. High School teams. America's leading sports fields use America's best field marking paints and custom stencils. When great teams choose to decorate their fields, they turn to World Class.

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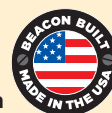
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PATENT PENDING

We've reinvented the classic groundskeeper's tamp. The **SweetSpot** is a more adaptable tool that delivers an efficient strike every time.

**This is the best tamp you'll ever buy.**

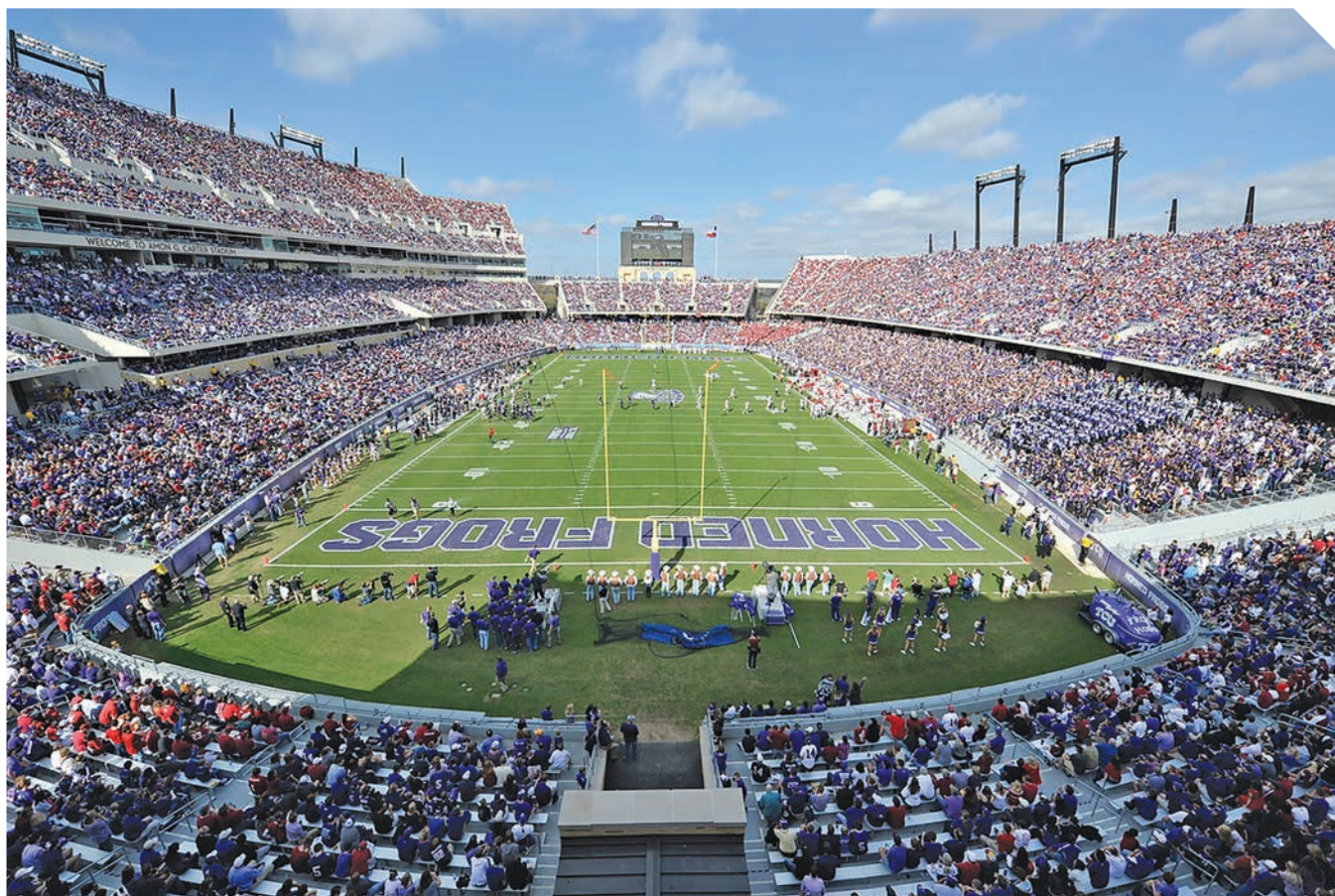
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FOR FACILITIES . FIELD MAINTENANCE . GAME-PRACTICE EQUIPMENT

# STMA CONFERENCE PREVIEW



*Amon G Carter Stadium, Texas Christian University*

## **Celebrate Women!**

*WED., JAN. 17, 12 - 2 PM*

All women at the conference are invited to a facilitated discussion and enjoy lunch during this annual forum. Founding sponsor Hunter Industries

## **Certification Testing**

STMA and ASBA will be holding their respective certification exams during the conference.

## **Certified Sports Field Manager**

*TUES., JAN. 16, 3 - 7 PM AND SAT., JAN. 20, 8 - 12 PM.*

Preregistration and prequalification required. Call STMA 800-323-3875.

## **CFB, CFB-N or CFB-S**

*SAT., JAN. 20, 8 AM - 1 PM.*

Preregistration, pre-qualification and a one-day minimum STMA Conference Package required. For more information call 866-501-2722.

## **Student Specific Activities**

### **Student Networking**

*WED., JAN. 17, 5:15 - 6:15 PM*

Gather with students from other colleges and universities to discuss trends, issues and career aspirations.

**“My answer to why I did and will continue to attend STMA conferences is simple. The conference is an avenue to many great learning experiences, professional connections, possible career building opportunities and future jobs. Attendees can view cutting edge equipment, learn new methods being practiced, and catch up with long time friends in the industry. I would highly recommend everyone to attend if possible. It is a wonderful overall experience.”**

**-CURT MOORE, FORMER PENN STATE STUDENT AND NOW ACCOUNT MANAGER, FINCH TURF INC.**

### Student Challenge

THURS., JAN. 18, 2 - 4:30 PM

Undergraduates in two- and four-year programs are eligible to compete in teams up to four people. Win \$5,000 for your school. Those who participate in the Student Challenge receive FREE conference registration.



Pre-registration is required and can only be completed online at STMA.org.

Founding Sponsor: Hunter Industries

Supporting Sponsor: Ewing

### Student Lunch

FRI., JAN. 19, 12 - 1 PM

Join your fellow student members and network with sports field managers. Winners of the Student Challenge will be announced immediately following lunch at the Hunter Industries booth.

# CONFERENCE REGISTRATION FEES

FULL Conference registration includes admission to all Education Sessions (except Optional Activities), the Welcome Reception, Awards Banquet, Trade Show, and online access to the educational session recordings. Attendees will receive breakfast each day, two lunches, two receptions, and dinner during the Conference.

Register on line for the lowest fees at [STMA.org](http://STMA.org)

Full Conference Registration	Online by 1/4/18
1 <sup>st</sup> Member from Facility	\$375
2 <sup>nd</sup> or more Member from same facility	\$325
NEW STMA Member	FREE
Non-Member or Chapter Only Member	\$505
Student National Member	\$100*
Student Non-national Member	\$250
<i>*Student members who participate in the Student Challenge receive FREE conference registration.</i>	
One-Day Packages, either Wednesday or Thursday	\$150 ea. day
Trade Show Only Pass: 2 days - Wed. and Thurs.	\$50
Non-Industry Spouse/Companion Registration	\$150
Seminar on Wheels - full day	\$65
Seminar on Wheels - half day	\$35
SAFE TopGolf Tournament	\$135
SAFE Bowling Tournament	\$75

**"I don't think you can overstate the benefit of attending the STMA Conference; it is the one place once a year that provides you with the most extraordinary networking experience possible. I truly believe that my life is far richer and fuller as a result of the relationships and friendships that have developed as a result of my annual attendance. Thank you STMA and to all of you I now call friend."**

**-KEVIN I MEREDITH, CSFM, SPORTS TURF CONSULTANT AND FORMER TURF MANAGER  
FOR THE NATIONAL SOCCER HALL OF FAME**

# STMA EXHIBITOR LISTINGS

## ABI Sports Turf

Mishawaka IN. . . . .387  
ABI Sports Turf designs and sells innovative sports turf products that produce safe and playable infields.

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

## Act Global

Austin TX. . . . .304  
Act Global is a worldwide leader in synthetic turf technology and reinforced natural grass to deliver quality, durability and elite performance.

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

## Advanced Drainage Systems® (ADS), Inc.

Hilliard OH. . . . .655  
Advanced Drainage Systems, Inc., the largest manufacturer of HDPE drainage pipes, provides solutions for residential projects to highway drainage. With a product line that includes AdvanEDGE®, ADS PolyFlex™ and Nyloplast products look no further than ADS for the best in sports field drainage solutions all designed to ensure maximum playability after the storm.

[www.ads-pipe.com](http://www.ads-pipe.com)

## Aer-Flo, Inc.

Cypress TX. . . . .313  
Aer-Flo, Inc. manufactures unique sports covers, including patented Wind Weighted® Baseball Tarps and Bench Zone™ Sideline Turf Protectors.

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

## AerWay By Salford Group

Salford Ontario Canada. . . . .341  
Salford Group manufactures and distributes the AerWay brand of high quality turf aeration products and the Valmar brand of fertilizer application products.

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

## Air2G2 Machine/ GT Air Inject Inc.

Jacksonville FL . . . . .667  
True aerification and oxygenation of turf soils.

[www.air2g2.com](http://www.air2g2.com)

## All Seasons Turf Grass

Brookshire TX. . . . .556  
Family owned sod farm with three types of Bermuda including Tifturf grown on sand.

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

## The Andersons

Maumee OH. . . . .404  
We provide the golf, sports turf, lawn, and landscape, horticultural, and agricultural markets with some of the highest quality proprietary and blended products in the industry.

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

## Anuvia Plant Nutrients

Zellwood FL. . . . .909  
Anuvia Plant Nutrients is a company committed to creating innovative products for farmers, turf managers and homeowners while providing an invaluable service for municipalities and industry. In all that we do, it is our goal to address the three pillars of sustainability to help people, plants and the planet thrive. Our way is unique. Our way is new. We are Anuvia.

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

## Aquasmart Enterprises

New Albany OH . . . . .347  
Aquasmart products reduce leakage of water and nutrients resulting in better overall plant health.

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

## Aquatrols

Paulsboro NJ . . . . .431  
Products that help to improve and maintain your root zone environment.

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

## AstroTurf

Dalton GA . . . . .822  
We are a world wide leader of synthetic turf and tracks.

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

## Avant Tecno USA

Arlington Heights IL . . . . .801  
Avant offers a line of compact, multifunctional, articulating loaders and attachments. Their size, weight, maneuverability, range of attachments and versatility makes them unique.

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

## Bannerman, Ltd

Rexdale Ontario Canada . . . . .317  
Aeration equipment, large turf rollers, topdressing machines, infield groomers, wet and dry liners, overseeding equipment and turf combs.

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

## Barenbrug USA

Tangent OR . . . . .331  
Barenbrug's innovative programs of research and turfgrass development are designed to provide varieties that afford the highest level of sports turf performance. Our RPR Regenerating Perennial Ryegrass and HGT Brand of wear tolerant Kentucky bluegrasses are recent top innovations in sports turf performance.

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

## BASF Corporation

Allen TX. . . . .305  
Premier provider of fungicides, herbicides, insecticides, colorants, and other plant protection products for athletic fields, golf courses, and landscapes.

[www.betterturf.basf.us](http://www.betterturf.basf.us)

## Bay Chemical Co.

Tampa FL. . . . .907  
We produce and distribute the best products in the turf industry all over the United States

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

## Bayer Environmental Science

Weatherford TX. . . . .356  
Bayer is a global enterprise with core competencies in the fields of health care, agriculture and high-tech materials. This year the company is celebrating 150 years of Bayer – consistent with its mission “Bayer: Science For A Better Life”. In the area of sports turf management, Bayer CropScience has a broad portfolio of products to control weeds, disease, nematodes, and turf damaging insects.

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

## Beacon Athletics

Middleton WI. . . . .421  
Supplies soil amendments, field maintenance equipment, custom netting, padding, windscreens and more.

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

## Billy Goat Industries

Lees Summit MO . . . . .367  
A full line of outdoor cleanup solutions inclusive of: cutters, aerators, overseeders, vacuums, blowers and truck loaders.

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

## BRANDT Consolidated Inc.

Springfield IL . . . . .821  
BRANDT is leading global manufacturer of specialty nutrients, adjuvants and colorants. The company currently offers three branded product lines in the turf market: GRIGG, BRANDT and BRANDT iHammer.

[www.brandt.co](http://www.brandt.co)

[www.grigg.co](http://www.grigg.co)

[www.brandtihammer.co](http://www.brandtihammer.co)

## Buffalo Turbine, LLC

Springville NY . . . . .549  
Since 1945, Buffalo Turbine has used “Turbine Technology” with our vast number of blowers and sprayers.

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

## Burbank Sport Nets

Fernandina Beach FL . . . . .207  
Burbank is the trusted choice for all your sport netting needs. From custom backstops, barrier netting, custom indoor hitting facilities and all your protective screen needs, we have you covered.

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



### **Bush Turf**

Milan IL .....845  
Bush Turf provides three dimensional field construction, renovation, and design.

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

### **C & H Baseball, Inc.**

Lakewood Ranch FL .....628  
C & H Baseball is the industry's leader in new stadium construction netting and field equipment. Supplying and installing field wall padding, windscreen, barrier nets, batting tunnels and artificial turf. We have successfully become a "one-stop" shop for all of your stadium needs.

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

### **Calcium Products, Inc.**

Ames IA .....455  
Calcium Products is the industry's leading manufacturer and supplier of pelletized calcium based material, including SuperCal S04, 98G and SuperCal Humic.

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

### **Campey Imants USA**

Macclesfield UK .....861  
Campey Turf Care Systems is a forwarding-thinking UK company, which distributes sports turf renovation and maintenance machinery across the world.

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

### **Carolina Green Corp.**

Indian Trail NC .....423  
Licensed sports field contractor specializing in the design, construction, renovation and maintenance of native or modified soil and sand based fields. Sod supplier including Gameon grass for immediate play.

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

### **Covermaster, Inc.**

Rexdale Ontario Canada .....400  
A leading supplier of baseball/football athletic field covers, mound and plate covers, turf growth blankets, turf protective systems and protective wall padding.

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

### **CoverSports USA**

Philadelphia PA .....612  
Manufacturer of ball field covers, winter turf blankets, and stadium padding.

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

### **Cub Cadet**

Indianapolis IN .....137  
Our innovative products are what set us apart, from robotic green mowers, to all-wheel steering zero turn mowers, explore Cub Cadet is setting the standard for innovation that delivers.

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

### **Dakota Peat & Equipment**

Grand Forks ND .....535  
Manufacturer of top dressing equipment and supplier of peat, blending and testing.

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

### **Dennis & SISIS**

Derbyshire UK .....155  
Manufacturers of natural and synthetic sports field maintenance equipment.

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

### **Diamond Pro**

Arlington TX .....613  
Provides groundskeepers nationwide a complete line of professional groundskeeping products and equipment.

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

### **Dollamur Sport Surfaces**

Fort Worth TX .....462  
With Dollamur Gym Turf 365, you will never have your practice interrupted because of weather or scheduling again. Easily and quickly turn any building into an indoor practice field.

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

### **DryJect, Inc.**

Hatboro PA .....201  
We are a patent aeration service with Service Centers that can amend your turf almost anywhere in the world. We also supply the new revolutionary Drainage PC system that can be installed into existing turf with minimal disruption.

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

### **Dura Edge Products, Ltd.**

Grove City PA .....833  
Dura Edge is a natural provider of Engineered Soils for baseball and softball fields.

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

### **Dura-Trac Flooring**

Redondo Beach CA .....761  
Dura-Trac™ is a revolutionary product designed specifically for the special events industry by special events flooring experts.

[www.duratrac.net](http://www.duratrac.net)

### **EarthWorks**

Easton PA .....632  
By applying the agronomic principals of Dr. William Albrecht along with our soil first approach, we can help you grow quality turf in a sustainable manner while maximizing the benefits of using EarthWorks products.

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

### **Eco Templine**

Seattle WA .....555  
Top quality turf making products for the sports world.

[www.eco-templine.com](http://www.eco-templine.com)

### **Ecogel Solutions, LLC**

Ocala FL .....567  
Ecogel Solutions, LLC is a company specializing in the production of environmentally responsible solutions for the sports turf, landcare and agricultural markets. Ecogel's products include technologies aimed at drought mitigation, water conservation and water management, dust control, plant nutrition, pond and lake treatments and surface coatings.

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

### **Engage Agro**

Shamong NJ .....362  
Engage Agro USA LLC introduces and commercializes novel, sustainable, and economical solutions for distributors, retailers, and end users in turf and ornamental markets.

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

### **EPG Media/SportsTurf Magazine**

Minneapolis MN .....661  
SportsTurf, official publication of STMA, targets sports turf managers and provides them with practical technical and management advice. This audience includes professionals who make purchasing decisions for parks, schools, professional operations, and colleges and universities, as well as those in charge of athletic fields, facilities and complexes.

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

### **Evergreen Turf**

Chandler AZ .....854  
Sod producer and sod installation services specializing in sports fields and golf course projects.

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

### **Ewing Irrigation & Landscape Supply**

Phoenix AZ .....731  
Ewing is the largest family owned supplier of irrigation for turf and landscape supplies.

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

### **Fairmount Santrol Sports & Recreation/ Fairmount Minerals**

Benton Harbor MI .....312  
High purity silica sand for sports fields, synthetic turf, and recreational areas.

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

### **FieldTurf/ Grassmaster**

Montreal Quebec Canada .....705  
The world leader in synthetic and hybrid turf solutions.

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

# STMA EXHIBITOR LISTINGS

## Fieldwall by SportsGraphics

Clarion IA .....457  
For 30 years SportsGraphics has been a leader in both quality and creativity, when it comes to your image and safety needs.  
[www.fieldwallpads.com](http://www.fieldwallpads.com)

## Fine Chemical Co., Inc.

Gimhae-Si Gyeongnam Korea .....935  
Manufacturer for the most advanced TPE infill.  
[www.kingfill.com](http://www.kingfill.com)

## First Down Football Products, Inc.

Monrovia CA .....826  
The only collapsible goal post you'll actually use.  
[www.FDFP.com](http://www.FDFP.com)

## First Products

Tifton GA .....528  
Manufacturer of aeration, seeding and verti-cutting equipment.  
[www.1stproducts.com](http://www.1stproducts.com)

## Fleet U.S.

Dakota City NE .....216  
Fleet will continue to manufacture the best quality machines and paints whilst always researching and developing better methods and technologies.  
[www.fleetus.com](http://www.fleetus.com)

## Floratine Products Group

Collierville TN .....722  
Agronomic solutions for improved field conditions and enhanced performance.  
[www.floratine.com](http://www.floratine.com)

## Foliar Pak/ J & D Turf

Columbus OH .....245  
Providing foliar fertilizers, soil conditioners and plant biostimulant products that elicit optimal plant health.  
[www.enpturf.com](http://www.enpturf.com)

## g2 turftools, Inc.

Athens AL .....237  
g2 turftools is a company dedicated to providing precision turf equipment for sports fields and golf courses. Its mission is to provide experienced quality turf managers with high quality products that make their jobs more cost effective and help them establish a new level of playability and aesthetically beautiful turf.  
[www.g2turftools.com](http://www.g2turftools.com)

## Gill Athletics

Champaign IL .....653  
Gill Athletics empowers coaches with innovative equipment.  
[www.GillAthletics.com](http://www.GillAthletics.com)

## Graco, Inc.

Rogers MN .....701  
Graco manufactures field making equipment to cover all of your field making needs.  
[www.graco.com](http://www.graco.com)

## Grand Slam Safety

Croghan NY .....946  
The SPECTO Sport Fencing System, by Grand Slam Safety, LLC, is a revolutionary, full body – full speed impact fencing system for use in, and around, sporting facilities and athletic fields. SPECTO reduces the risk of player injury, maximizes usable space, and increase field versatility with its permanent or temporary functionality.  
[www.grandslamsafety.com](http://www.grandslamsafety.com)

## GreenJacket

Genoa City WI .....122  
Manufacture grow-in and protective covers for athletic fields and baseball rain covers.  
[www.greenjacket.com](http://www.greenjacket.com)

## GreensGroomer WorldWide, Inc.

Indianapolis IN .....523  
We manufacture and sell turf conditioning equipment for natural and synthetic turf.  
[www.greensgroomer.com](http://www.greensgroomer.com)

## Growth Products, Ltd.

White Plains NY .....454  
The liquid solution company, professional fertilizers, micro nutrients and natural organics.  
[www.growthproducts.com](http://www.growthproducts.com)

## HARCO Fittings

Lynchburg VA .....211  
HARCO has become a leading developer of pipe fittings for the waterworks and irrigation markets. The Harrington Corporation (HARCO) is a producer of gasketed joint injection-molded PVC fittings and push-on gasketed joint ductile fittings.  
[www.harcofittings.com](http://www.harcofittings.com)

## Harper Turf Equipment

Harper KS .....131  
Unmatched innovation, Harper Turf Equipment focuses on specialty products for debris management. Cleaner. Faster. Harper.  
[www.harperturfequipment.com](http://www.harperturfequipment.com)

## Harrell's, LLC

Lakeland FL .....809  
Harrell's is a leading producer and distributor of customized agronomic solutions.  
[www.harrells.com](http://www.harrells.com)

## Harrod UK

Lowestoft UK .....456  
Manufacturer and worldwide supplier of soccer, football, and field hockey goals and posts.  
[www.harrod.uk.com](http://www.harrod.uk.com)

## Hellas Construction

Austin TX .....267  
Hellas leads the sports construction industry by producing and installing the best synthetic turf, track systems, and court surfaces, with precise quality and long-term durability, while always keeping the safety of athletes in mind. Hellas constructs these projects all across the nation, in time frames that some find impossible, so they are ready for game day and always on budget.  
[www.hellasconstruction.com](http://www.hellasconstruction.com)

## Hunter Industries

San Marcos CA .....713  
Hunter is a world-class manufacturer of efficient irrigation and landscape lighting products providing the most effective solutions for sports turf and synthetic fields worldwide.  
[www.hunterindustries.com](http://www.hunterindustries.com)

## Hydraway Drainage Systems

Belleville IL .....513  
Sports Turf drainage systems for natural and synthetic turf.  
[www.hydraway.net](http://www.hydraway.net)

## IntegraTurf, Inc.

Albany OR .....657  
IntegraTurf, Inc. is a wholesale grass seed company that offers a full line of proprietary cool season turf seeds. Integra understands that even though all customers are unique, they all want four things: Value, Service, Expertise and Innovative Products.  
[www.integraturf.com](http://www.integraturf.com)

## Intelligro

Mississauga Ontario Canada .....753  
Healthier turf is resilient turf. By controlling the diseases and insects that can damage turf health, CIVITAS products help to improve the quality of turf so the visual aesthetic and playability are enhanced.  
[www.civitasturf.com](http://www.civitasturf.com)

## Iowa State University, Department of Horticulture

Ames IA .....140  
Becoming a turf professional requires a unique journey that includes both classroom and practical laboratory training with hands-on experiences. The best place to receive that experience is in the Department of Horticulture at Iowa State University.  
[www.hort.iastate.edu](http://www.hort.iastate.edu)

**Jacklin Seed Company**

Washington Court House OH . . . . .453  
Producers and marketers of world class turf genetics.  
[www.jacklin.com](http://www.jacklin.com)

**Jacobsen**

Augusta GA . . . . .812  
Jacobsen's high quality turf equipment is used on some of the finest sports fields, golf courses and other formal turf areas across the U.S. and the world.  
[www.jacobsen.com](http://www.jacobsen.com)

**Jaypro Sports, Inc.**

Waterford CT . . . . .224  
For over 60 years Jaypro has provided thousands of customers with sports and recreation products in facilities across the nation and the globe! We take great pride in providing manufactured products that will last long, operate smoothly and give you years of trouble free use.  
[www.jaypro.com](http://www.jaypro.com)

**John Deere**

Olathe KS. . . . .437  
Here's to all the fields that take a pounding and all the dedicated men and women who keep them going. Thanks to you, we've built some incredible stories with some of the best in the industry. Stop by and let's talk. Who knows? Maybe our next story will be yours.  
[www.deere.com](http://www.deere.com)

**Johnston Seed Company**

Enid OK . . . . .517  
Exclusive producers and marketers of Riviera Bermudagrass, a truly superior quality, cold-tolerant Bermudagrass.  
[www.johnstonseed.com](http://www.johnstonseed.com)

**Kifco, Inc.**

Havana IL . . . . .233  
Since its founding in 1964, Kifco has taken great pride in designing, developing, and delivering a comprehensive line of customer-focused traveling irrigation systems, trademarked the Water-Reel.  
[www.kifco.com](http://www.kifco.com)

**Kubota Tractor Corporation**

Grapevine TX . . . . .635  
Kubota Tractor Corporation has become an international brand leader with a focus on contributing to society by offering environmentally compatible equipment designed to improve quality of life.  
[www.kubota.com](http://www.kubota.com)

**Kwik Goal**

Quakertown PA. . . . .213  
Leading manufacturer of high quality, durable, safety tested sports listed equipment.  
[www.kwikgoal.com](http://www.kwikgoal.com)

**Labosport Inc.**

Montreal Canada . . . . .148  
Mechanical, physical, and chemical testing on sports surfaces.  
[www.labosport.com](http://www.labosport.com)

**Landmark Turf & Native Seed**

Madison WI . . . . .911  
Landmark Turf and Native Seed is a full service Seed Company that provides Turfgrass Varieties and Mixtures for Athletic Fields. Vitality HD Sport 2.0 features all top performing Bluegrass varieties and is available as a seed mixture or in Sod Blends.  
[www.landmarkturfandnativeseed.com](http://www.landmarkturfandnativeseed.com)

**Landscapes Unlimited, LLC**

Lincoln NE . . . . .345  
Our Recreational Development Group's expertise in landscaping, irrigation, drainage and laser grading has been instrumental in our capabilities to create high-class sports fields (natural or synthetic), trails, practice fields and parks.  
[www.landscapesunlimited.com](http://www.landscapesunlimited.com)

**Lebanon Turf**

Lebanon PA . . . . .625  
Lebanon Turf provides innovative fertilizer, fertilizer/pesticide combination products, biologicals, organics and seed to the professional turfgrass markets.  
[www.lebanonturf.com](http://www.lebanonturf.com)

**Linemark International**

Vejle Denmark . . . . .125  
Linemark International provides high quality and innovative grass marking products which allow you to mark sports fields with ease.  
[www.linemarkinternational.com](http://www.linemarkinternational.com)

**Magnation Water Technologies**

Oakland CA . . . . .741  
Magnation Water Technologies provides chemical free water treatment units for rain like water.  
[www.magnationwater.com](http://www.magnationwater.com)



**AERA-vator with New Power Seeder Shaft**

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**sales@1stproducts.com**

# STMA EXHIBITOR LISTINGS

## Mar-Co Clay Products

Ontario Canada .....212  
80+ years & 3 generations in the clay industry with over 20 years as the leading specialist in baseball and sports clay. We offer customized pro-grade mixes & conditioners that provide exceptional drainage for less rainouts and are easy to maintain.

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

## Matrax, Inc.

Lutherville MD .....745  
Leading manufacturer of a high-performance, drivable turf protection event flooring solution.

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

## Mid-America Sports Construction

Lee's Summit MO .....303  
State-of-the-art construction and renovation of athletic fields, offering both natural grass and synthetic turf.

[www.mid-americasportsconstruction.com](http://www.mid-americasportsconstruction.com)

## Missouri Turf Paint

Kansas City MO .....737  
Providers of turf paint, stencils, application equipment, and field lining systems.

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

## The Motz Group

Cincinnati OH .....351  
Design/build and construction of high performance natural and synthetic turf sports fields.

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

## Mountain View Seeds

Salem OR .....805  
Wholesale supplier of premium grass seed products.

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

## Multi-Flow Drainage Systems

Prinsburg MN .....616  
Multi-flow is the industry standard in high-end drainage systems.

[www.multi-flow.com](http://www.multi-flow.com)

## Nature Safe Natural & Organic Fertilizers

Cold Spring KY .....720  
Nature Safe Fertilizers are made from animal proteins, not manure.

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

## Netex Netting Inc.

Delta BC Canada .....161  
Custom fabrication, design, and installation services worldwide.

[www.netexnetting.ca](http://www.netexnetting.ca)

## New Ground Technology

Pleasanton CA .....360  
We provide equipment, software and creative services that enable high-exposure venues (stadiums, sports fields, hotel grounds, etc.) to display promotional and/or revenue generating images on their turf.

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

## Newstripe, Inc.

Aurora CO .....422  
Newstripe is a manufacturer of paint striping machines, drag mats, infield groomers, layout systems and logo stencils.

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

## Nordic Auto Plow, LLC

West Chicago IL .....944  
Nordic Plow core solutions for all turf equipment.

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

## Palau Turf

Tarragona Spain .....226  
We provide the only elastic reinforced turf system in the world. The smartest hybrid field.

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

## PBI Gordon

Highlands Ranch CO .....337  
Anywhere you see beautiful sports turf, golf courses, professional landscaping or lawn maintenance, there's probably a Gordon's product behind it. We're the nation's leader in professional T&O products and nobody knows your turf like we do.

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

## Pearl Valley Farms

Chicago IL .....126  
Pearl Valley Farms produces Organic Healthy Grow compost that maintains the nourishing beneficial microbes vital for helping plants thrive.

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

## Penn State

University Park PA .....144  
Penn State World Campus, backed by over a century of distance education and 15+ years of outstanding online instruction, offers more than 125 programs, award winning degrees and transcripts identical to those earned by on-campus students. Our mission is to ensure your access to a quality academic experience, anywhere, anytime.

[www.worldcamous.psu.edu](http://www.worldcamous.psu.edu)

## Pennington Seed, Inc.

Madison GA .....531  
Premier grass seed company bringing the most technologically advanced varieties to the sports turf managers since 1945. Offering fertilizer, chemicals and skinned surface materials.

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

## The Perfect Mound

Sauget IL .....851  
The mission of The Perfect Mound™ is to provide baseball players, of all levels, the highest quality portable pitcher's mounds. Our products are designed by baseball players for baseball players with regards to safety, durability and playability.

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

## Performance Nutrition (Lidochem, Inc.)

Hazlet NJ .....307  
Lidochem's performance nutrition division develops and markets unique and effective organic and conventional plant nutrients, chelated micronutrients, bio pesticides, eco fertilizers, soil amendments and bio stimulants. Most products are patented or patent pending and are safe for the environment, the applicator and the consumer.

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

## Perry Weather

Dallas TX .....937  
Perry Weather is a cloud-based lightning detection & weather notification platform. Our service sync both on-site audible and visual alerting units with a companion web and mobile application.

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

## Pickseed

Tangent OR .....623  
Dedicated to seeds and science. Committed to customer service and authentic professionalism.

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

## Pioneer Athletics

Cleveland OH .....401 & 501  
Pioneer Athletics is the leading developer and manufacturer of natural and synthetic grass field marking paint. Founded in 1905, Pioneer is the teammate of over 25,000 high schools, universities, and professional athletic organizations.

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

## Plant Food Co., Inc.

Westlake OH .....804  
71 year old family run liquid fertilizer company. Represented by industry professionals.

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

## Platinum TE Paspalum

Naples FL .....563  
Platinum TE from Dr. Ron R. Duncan is the paspalum innovation selected by top sports facilities worldwide. This durable, dark green turfgrass offers excellent texture and striping as well as superior shade tolerance.

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



# JOHN MASCARO'S PHOTO QUIZ

JOHN MASCARO IS PRESIDENT OF TURF-TEC INTERNATIONAL

//////////

ANSWERS FROM PAGE 17

//////////

The green turfgrass area surrounded by irregular brown turfgrass on this multipurpose athletic field is a result of a man-made problem. Since this facility has a very limited budget and is short staffed, they sometimes task school employees like the custodian to help out with various athletic field duties. Some of these people are not trained in turf maintenance. In this instance, the school's custodian was assigned the task of spraying glyphosate to kill the weeds. He was instructed to apply the material around the poles and spot spray the weeds.

However, the custodian assumed the "weed killer" would only kill weeds. It appears that instead of spot spraying, they decided that more of a "walk and sweep" method might be quicker and easier to control the weeds. As you can



see, the method was successful at taking out the weeds; however it also killed large areas of turf as well. The area was raked out and re-seeded and clearer instructions were given to the applicator to prevent future scenarios like this one.

*Photo submitted by Pamela Sherratt, Turfgrass Specialist at Ohio State.*

If you would like to submit a photograph for John Mascaro's Photo Quiz please send it to John Mascaro, 1471 Capital Circle NW, Ste # 13, Tallahassee, FL 32303 call (850) 580-4026 or email to john@turf-tec.com. If your photograph is selected, you will receive full credit. All photos submitted will become property of SportsTurf magazine and the Sports Turf Managers Association.



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## Port Industries, Inc.

Palmyra MO .....662  
Distributor of the most complete line of sports turf drainage equipment.  
[www.portindustries.com](http://www.portindustries.com)

## Power Turf Renovation, LLC.

Waddell AZ .....931  
The most versatile sports turf renovation machine on the market. In one pass this machine will remove the problematic infield up, detach, aerate, verti-cut and level turf.  
[www.powerturfrenovation.com](http://www.powerturfrenovation.com)

## Precision Laboratories LLC

Waukegan IL .....210  
At Precision Laboratories, we help the grower, retailer, golf course superintendent and turfgrass manager feed the world, create great outdoor playing surfaces, and steward the earth with specialized chemistries.  
[www.precisionlab.com](http://www.precisionlab.com)

## Precision Turf LLC

Buford GA .....800  
Precision Turf LLC will serve all of your athletic playing field needs.  
[www.pturf.com](http://www.pturf.com)

## Protea Botan

Collierville TN .....257  
Agricultural and turf products designed with the producers objectives in mind.  
[www.proteabotan.com](http://www.proteabotan.com)

## Pro-Tech

Rochester NY .....332  
The first containment plow designed specifically for clearing snow away from turf sports fields.  
[www.turfpusher.com](http://www.turfpusher.com)

## Pro's Choice

Alpharetta GA .....838  
Pro's Choice is a division of Oil-Dri Corporation of America. We manufacture and produce soil conditioners utilizing a seven-step process.  
[www.proschoice1.com](http://www.proschoice1.com)

## Pure Seed

Canby OR .....752  
Suppliers of premium quality turf grass seed to sports turf professionals.  
[www.pureseed.com](http://www.pureseed.com)

## Quality Event Flooring Systems

Beaumont TX .....145  
Forty-three year manufacturer of portable roadways and temporary event flooring to protect stadium turf.  
[www.qualityeventflooring.com](http://www.qualityeventflooring.com)

## Quest Products Corporation

Linwood KS .....751  
Quest Products produces fertilizers and micro-nutrient products to increase turf wear, sustainability and performance.  
[www.questproducts.us](http://www.questproducts.us)

## R&R Products

Tucson AZ .....225  
Manufacturer of turf replacement equipment and turf equipment replacement parts.  
[www.rproducts.com](http://www.rproducts.com)

## Rain Bird

Atlanta GA .....545  
Worldwide leader of irrigation products to sports arenas, golf courses, and commercial developments.  
[www.rainbird.com](http://www.rainbird.com)

## Rain Out, LLC

Las Vegas NV .....847  
Rain Out is a revolutionary, new product that works for all teams—from the pros to the pee wees. With an absorption ratio of 250 to 1, it is deemed an incredible, cost-saving product for high schools, youth leagues and municipalities. Rain out works 10 times faster using a mere fraction of the amount of any competitor's product.  
[www.rainoutproducts.com](http://www.rainoutproducts.com)

## Redexim North America

Valley Park MD .....601  
Manufacturer of specialized turf and ground care equipment produced especially for aeration, seeding, topdressing and environmental maintenance.  
[www.redexim.com](http://www.redexim.com)

## Redexim North America (BLEC N.A.)

Valley Park MD .....101  
Manufacturer of specialist landscaping, grounds construction and turfware machinery.  
[www.blec.co.uk](http://www.blec.co.uk)

## Redox Chemicals, LLC

Burley ID .....250  
A reacted plant nutrient company that specializes in innovative plant growth technology.  
[www.redoxchem.com](http://www.redoxchem.com)

## REHAU

Leesburg VA .....554  
REHAU is a global leader in turf heating applications, with more than 225 systems installed in professional playing and practice fields throughout the world. We support turf field managers during the design and installation of our Pex-based piping systems and controls and advise on ongoing system optimization.  
[www.rehau.com](http://www.rehau.com)

## Royse Green Technologies

State College PA .....469  
RGT provides innovative event turf protection and light supplementation. RGT is the recipient of STMA's 2016 Innovation Award.  
[www.roysegreentechologies.com](http://www.roysegreentechologies.com)

## Salsco, Inc.

Cheshire CT .....353  
Tranz-Former, EHA Sports Fields, Greens and Fairways Roller. With features like 114" effective rolling width, light weight rolling to help prevent compaction and 11 M.P.H. transport speed, the Tranz-Former is the ideal machine for rolling Sports Fields, Greens and Fairways. The Tranz-Former is not designed to make anything flat; it's designed to smooth the surface.  
[www.salsco.com](http://www.salsco.com)

## Schiller Grounds Care, Inc.

Southampton PA .....251  
Schiller Grounds Care, Inc. engineers, manufactures and markets some of the world's most sought-after lawn and garden care equipment. Our passion for innovation, quality and reliability is evident throughout our full line of high performance products used by professionals, avid gardeners and homeowners around the globe.  
[www.schillergc.com](http://www.schillergc.com)

## Seed Research of Oregon

Tangent OR .....452  
Quality cool and warm season grass seed for all athletic needs.  
[www.sroseed.com](http://www.sroseed.com)

## Shaw Sports Turf

Calhoun GA .....836  
Shaw Sports Turf is one of the leading synthetic turf companies in North America. Shaw Turf is a complete turnkey surfacing division comprised of four companies that excel in providing synthetic solutions for commercial, residential landscaping, pet facilities, parks, playgrounds, sports fields, and landfill applications.  
[www.shawsportsturf.com](http://www.shawsportsturf.com)

## Shive-Hattery

Cedar Rapids IA .....760  
Shive-Hattery collaborates with municipalities, K-12 and higher-education institutions to enhance the practice and competition facilities enjoyed by athletes, family and friends, fans, financial supporters, and the public. We design and engineer the solutions that can withstand constant activity, influxes of people, flexible uses, and less-than-ideal weather conditions.  
[www.shive-hattery.com](http://www.shive-hattery.com)

### Sidekick USA, LLC

Plainfield IL .....827  
We've developed the fastest and easiest ways to lay thick-cut in the industry, only from Sidekick USA, giving you the safest, firmest athletic field immediately. Our patented machinery is unique to the industry and won the 2013 STMA Innovative Award!  
[www.sidekickusa.com](http://www.sidekickusa.com)

### Sigma Organics, Inc.

Nashville TN .....306  
Sigma Organics provides the knowledge, capabilities, and personnel to assist any sports turf managers needs. Whether it be professional, collegiate, or high school level sports, Sigma can provide you with the products you need to get the job done.  
[www.sigmaturf.com](http://www.sigmaturf.com)

### Signature Systems Group

Flower Mound TX .....561  
Signature Systems Group is the world's largest manufacturer and renter of temporary flooring systems that protect natural grass, artificial turf, and ice arenas. Our stadium flooring systems are in use worldwide at prestigious arenas and stadiums and have proven themselves through extensive use.  
[www.stadiumflooring.com](http://www.stadiumflooring.com)

### Smithco, Inc.

Wayne PA .....915  
Manufacturers of premier Sports Turf equipment. We provide solutions for today's professional grounds manager.  
[www.smithco.com](http://www.smithco.com)

### Sod Production Services

Charles City VA .....124  
Sod Production Services is here to support growers and end users by providing high end turf grasses for the sports arena and assist with agronomic services and consulting.  
[www.sodproductionservices.com](http://www.sodproductionservices.com)

### Sod Solutions

Mt. Pleasant SC .....321  
Researching, developing and promoting improved turfgrass varieties worldwide.  
[www.sodsolutions.com](http://www.sodsolutions.com)

### Solu-Cal USA

W. Wareham MA .....756  
Solu-Cal USA's family of calcium and sulfur products allow turf managers to quickly and efficiently address soil chemistry problems. Solu-Cal Enhanced Calcium quickly raises soil pH at ¼ the rate of traditional liming material.  
[www.solu-cal.com](http://www.solu-cal.com)

### Southern Athletic Fields, Inc.

Columbia TN .....405  
Southern Athletic Field, Inc. is a supplier of quality infield mixes, mound clays, clay bricks, calcined clays and warning track materials as well as innovative field accessories.  
[www.safdirt.com](http://www.safdirt.com)

### SportsField Management

Wells River VT .....151  
Professionals who care for athletic fields and facilities rely on SportsField Management as a resource so their field of dreams becomes a reality. From best practices to innovative techniques, SportsField Management is a critical resource for our readers because their quest for perfection never ends – nor does the thrill of the turf.  
[www.sportsfieldmanagementmagazine.com](http://www.sportsfieldmanagementmagazine.com)

### Sports Turf Company, Inc.

Whitesburg GA .....547  
Sports Turf Company is an athletic facility construction company. For more than 25 years, Sports Turf Company has been building athletic fields, tracks and tennis courts with an uncompromising commitment to quality.

Whether it be a design-build project, renovation or new construction, the experts at Sports Turf Company have you covered.  
[www.sportsturf.net](http://www.sportsturf.net)

### Sports Venue Padding

Cerritos CA .....850  
Leading manufacturer of stadium field padding, rail padding, autogate padding, and sponsor graphics.  
[www.sportsvenuepadding.com](http://www.sportsvenuepadding.com)

### SportsEdge®

Troutman NC .....231  
Manufacturer/supplier of surface and sub-surface drain systems, football goals, soccer goals, and track equipment.  
[www.sportsedge.com](http://www.sportsedge.com)

### Sportsfield Specialties, Inc.

Delhi NY .....344  
Since 1998 we have been the innovative industry leader in the sale and manufacture of sports construction equipment. We continue to meet the demands of modern sports construction through innovative design and state-of-the-art manufacturing.  
[www.sportsfieldspecialties.com](http://www.sportsfieldspecialties.com)

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## **Spyker Spreaders**

Jeffersonville IN .....755  
Spyker Spreaders designs and manufactures world-class broadcast spreaders. Made in the USA.  
[www.spyker.com](http://www.spyker.com)

## **Stabilizer Solutions, Inc.**

Phoenix AZ .....406  
Infield mixes, mound mixes, custom blends. Worldwide stabilization products.  
[www.stabilizersolutions.com](http://www.stabilizersolutions.com)

## **Stadium Grow Lighting**

Waddinxveen The Netherlands .....261  
SGL supplies grow light systems and monitoring equipment and services that make it possible to have a high quality natural turf year round.  
[www.sglconcept.com](http://www.sglconcept.com)

## **STEC Equipment**

Sandy Springs SC .....445  
The industry leader in specialized turf equipment with a mission to stay on the forefront of innovation.  
[www.stecequipment.com](http://www.stecequipment.com)

## **SubAir Systems, LLC**

Graniteville SC .....723  
Providing solutions to air movement problems above and below the surface.  
[www.subairsystems.com](http://www.subairsystems.com)

## **Sunbelt Rentals, Inc.**

Fort Mill SC .....320  
Sunbelt Rentals is proud to be the second largest equipment rental company in the United States. Sunbelt offers a range of general construction equipment, industrial tools, pumps and power generation equipment, trench shoring, scaffolding, remediation and restoration equipment, and much more.  
[www.sunbeltrentals.com](http://www.sunbeltrentals.com)

## **Sustane Natural Fertilizer, Inc.**

Cannon Falls MN .....663  
World wide distributor network in turfgrass construction and maintenance.  
[www.sustane.com](http://www.sustane.com)

## **Syngenta**

St. Louis MO .....621  
Syngenta bring plants potential to life.  
[www.syngentaprofessionalproducts.com](http://www.syngentaprofessionalproducts.com)

## **Synthetic Turf Council**

Forest Hill MD .....928  
Founded in 2003, the Synthetic Turf Council is a 501(c)6 non-profit association dedicated to serving as a resource for trustworthy information about synthetic turf. Our objective is to encourage, promote, and facilitate better understanding among all parties involved in the manufacture, selection, delivery and use of today's synthetic turf systems.  
[www.syntheticurfCouncil.org](http://www.syntheticurfCouncil.org)

## **Target Specialty Products/ Turf Fuel**

Novi MI .....860  
At Turf Fuel we continually work on developing new technologies and product concepts to maintain our position as an industry leader in plant nutrition, plant defense system activation, and specialty chemistries..  
[www.turfuel.com](http://www.turfuel.com)

## **Terraplas USA/Checkers Safety**

Kilgore TX .....644  
Beginning in 1994 with the first sale of Terraplas in the United States to Foxboro Stadium (now Gillette Stadium), the Terraplas name has been the standard in the high-end turf protection business  
[www.terraplasusa.com](http://www.terraplasusa.com)

## **Thomas Turfgrass**

Wharton TX .....363  
We specialize in providing and installing premium sand based sod and sprigs for sports fields and golf courses.  
[www.thomasturfgrass.com](http://www.thomasturfgrass.com)

## **TifTuf Bermuda Southeast**

High Shoals GA .....666  
TifTurf is a fine textured Bermuda grass. After 25 years of testing and development it has proven to be superior in drought tolerance, wear tolerance, and fall color retention.  
[www.supersod.com](http://www.supersod.com)

## **Tiny Mobile Robots**

Denmark .....113  
Tiny Mobile Robots manufacture autonomous robots for marking sport complexes.  
[www.tinylinemarker.com](http://www.tinylinemarker.com)

## **The Toro Company**

Bloomington MN .....412  
The Toro Company provides a broad suite of products and services that meet the turf professionals' demands for productive and reliable equipment and efficient irrigation solutions. We do this through a commitment to superior innovation and superior customer care.  
[www.toro.com](http://www.toro.com)

## **Tri-Tex Grass**

Granbury TX .....648  
Tritex Grass is a premium grower of warm season grasses for sports and golf.  
[www.tritexgrass.com](http://www.tritexgrass.com)

## **Trimax Mowing Systems, Inc.**

Griffin GA .....361  
Trimax Mowing Systems design and manufacture high quality, world leading mowers, for golf courses, sports fields and fine turf.  
[www.trimaxmowers.com](http://www.trimaxmowers.com)

## **TruMark Athletics**

Omaha NE .....300  
TruMark Athletics is your partner in field preparation with everything from paint to machines, stencils to field covers. We have what you need to make your mark.  
[www.trumarkathletics.com](http://www.trumarkathletics.com)

## **Turf & Soil Diagnostics**

Linwood KS .....420  
Turf & Soil Diagnostics is the leading sports turf testing company, with unrivaled knowledge, experience, and dedication to the sports turf industry. Whether you're constructing new fields or perfecting your infield mixes, Turf & Soil Diagnostics can provide the information you need to build and manage your sports fields for optimum performance.  
[www.turfdiag.com](http://www.turfdiag.com)

## **Turf Merchants, Inc.**

Tangent OR .....926  
Turf Merchants is a world leader in providing turf seed to sports fields around the world. Independently owned and operated for over 30 years, we have the knowledge and experience to solve your turf needs.  
[www.turfmerchants.com](http://www.turfmerchants.com)

## **Turf-Tec International**

Tallahassee FL .....429  
We manufacture diagnostic testing equipment for natural and artificial turf.  
[www.turf-tec.com](http://www.turf-tec.com)

## **Surface Athletics**

Buffalo Grove IL .....629  
Surface Athletics is the leader in sports field maintenance, providing the industry's best products to solve and prevent field maintenance problems. Our products are the number one choice among groundskeepers. The complete line of Surface products has superior absorption and drainage to help fight compaction and create safe playing surfaces at all levels.  
[www.surface.com](http://www.surface.com)



### Turfco Manufacturing

Blaine MN .....721  
For over 50 years, Turfco has been the innovator in providing quality turf maintenance equipment.  
[www.turfco.com](http://www.turfco.com)

### Turfgrass Producers International

Lombard IL .....913  
Turfgrass International (TPI) supports turfgrass producers throughout the world by promoting the global environment benefits and use of turfgrass through education and research. TPI was established in 1967 and has members worldwide.  
[www.turfgrassod.org](http://www.turfgrassod.org)

### TurfTime Equipment, LLC

New Holland PA .....316  
Manufacturer of turf maintenance equipment— aerators, top dressers, verticutters, roller and infield drags.  
[www.turfimeeq.com](http://www.turfimeeq.com)

### U.S. InterLoc Matting, Inc.

Sacramento CA .....806  
Lightweight and driveable portable floor matting for turf protection on natural and synthetic fields. Perfect for rapid deployment for concerts, corporate events, tent flooring or equipment onto the fields.  
[www.usinterloc.com](http://www.usinterloc.com)

### U.S. Specialty Coatings

Alpharetta GA .....461  
U.S. Specialty Coatings is a manufacturer of Athletic Field Marking Paints, Paint Striping Machines, Athletic Field Accessories, Traffic Paints, Marking Paints, Industrial Coatings, Protective Coatings, Specialty Custom Coatings, Architectural Paints, Concrete Restoration Coatings, Asphalt Repair Products, Janitorial Cleaners Disinfectants, Floor Wax Polishes, serving customers all over the world.  
[www.usscproducts.com](http://www.usscproducts.com)

### Underhill Intl.

Mission Viejo CA .....310  
Underhill has over 32 years of excellence in worldwide manufacturing and technical sales of irrigation and related products for sports fields, golf courses, commercial and residential.  
[www.uicorp.net](http://www.uicorp.net)

### University of Georgia

Athens GA .....142  
The University of Georgia Center for Continuing Education offers comprehensive professional development for turf industry professionals. Earn a certificate of completion in 12 months or less!  
[www.georgiacenter.uga.edu/courses](http://www.georgiacenter.uga.edu/courses)

### Ventrac

Orrville OH .....901  
Ventrac compact tractors and attachments lead the sports turf industry in choices for versatility and durability. Ventrac gives you the ability to choose between 30+ attachments such as contour deck, reel mower, aeration, leaf blowers and more!  
[www.ventrac.com](http://www.ventrac.com)

### Vista Seed Partners

Shedd OR .....630  
We offer a complete line of quality turf and forage seeds and provide clients with the product, services, and support they require for lasting success.  
[www.vistaseedpartners.com](http://www.vistaseedpartners.com)

### Waupaca Sand & Solutions

Waupaca WI .....301  
Manufacturer of infield mix, warning track stone and custom soil blending.  
[www.waupacasand.com](http://www.waupacasand.com)

### Whitlam Paint Company

Wadsworth OH .....134  
With over 100 years of paint manufacturing, Whitlam leads the industry in turf marking paints and quality specialty coatings.  
[www.whitlampaint.com](http://www.whitlampaint.com)

### Wiedenmann North America, LLC

Savannah GA .....537  
Wiedenmann is a leader in the manufacturing of turf maintenance equipment for both natural and artificial turf surfaces.  
[www.wiedenmannusa.com](http://www.wiedenmannusa.com)

### Wood Bay Turf Technologies

Sun City AZ .....515  
World leader in synthetic and natural athletic field aeration and dethatching.  
[www.woodbayturftech.com](http://www.woodbayturftech.com)

### World Class Athletic Surfaces, Inc.

Leland MS .....645  
The world's premier manufacturer of quality field marking paints. We create custom stencils for field logos.  
[www.worldclasspaints.com](http://www.worldclasspaints.com)

### World Sports Solutions International

Henderson NV .....552  
World Sports Solutions International Co. is a renowned international company specializing in the maintenance of professional and amateur athletic fields, as well as high-end residential and commercial landscaping areas. Our team offers the highest quality services and technologies for the sports turf industry.  
[www.wsportssolutions.com](http://www.wsportssolutions.com) /ST/

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- Fabric is great insulator.
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# How do new turf industry products come to be? Part I

*Editor's note: This is the first of three articles on new product development in the turf industry.*

**D**oubtful many readers often consider how the equipment and products you use daily came to be but sometime someone somewhere had an idea and turned it into a tool for you. The product development process is expensive, risky and time consuming. Though world-shaping innovations have emerged from garages and will continue to do so, companies cannot depend solely on flashes of brilliance and inspiration to provide their next new product.

We asked several STMA Commercial members two questions regarding their processes: How do you determine customer needs or new ways to serve the market? And, what are the main criteria that must be met to green light the new product development process? Thanks to Mike Williams, World Class Athletic Surfaces; Mike Glassett, Synthetic Surfaces Inc.; and Fred Hoge, Humphrys CoverSports:

## How do you determine customer needs or new ways to serve the market?

**Williams:** The best way to determine customer need is by listening. In passing conversation, customers may say, "I wish there was an easier/faster/more economical/environmentally friendly way to get things done." If we listen, we'll never run out of ideas. Customers may give us suggestions for new products but we also try to think out of the box in order to surpass the status quo of the industry. We observe what is trending in different industries. If environmentally friendly products are popular in other industries, there is a chance that our customers are looking for greener products as well.

Take our new Totes System as an example. We heard our customers asking

for a paint delivery and storage system that takes up less space, and created less packaging waste. We also knew that almost all industries were trying to find ways to be more environmentally friendly and reduce waste. The Totes System was born out of listening to customer need,

observing trends in our market and other industries, and not excepting the way things have always been in terms of paint delivery systems.

**Glassett:** We do not make "commodity type" adhesives because they are already available from several suppliers. Nor do we make an effort to try to convince satisfied adhesive users to switch to our adhesive. Instead, we believe it is to both the user's benefit and ours, if we can help a potential customer who has an "adhesive toothache" or is suffering without realizing it. If we supply an adhesive that eliminates their problem, the customer will buy it.

Customer needs are determined by listening to what they say about issues they've encountered when using other adhesives. Their concerns might be related to the inconvenience of handling certain types of adhesives such as two-parts or hot melts, or temperature restrictions on their use that prolong the installation at great expense while the installer waits for fair weather in which to do the project, or the adhesive's failure to maintain a strong bond over time in variable outdoor conditions. This gives the adhesive manufacturer incentives to develop new or improved products that can resolve these issues.



*"Toro has a long history of turf-focused products. Product development is applying that turf product knowledge to an entirely new category of product for the industry that will help turf managers accomplish so much with one product. The customers who have supplied feedback through the development process have been key to challenge our engineers and marketing teams to think outside the box." -Rex Bergsten, Chief Development Engineer for The Toro Company (photo courtesy of Toro.)*

Over the decades, many generic one-part, solvent-based, moisture-cured urethane adhesives have been developed that are easy to use and can be applied in sub-freezing temperatures to intense desert heat. They can be used in a wide variety of synthetic turf athletic fields and other sport and recreational surface installations, plus for aquatic use around and in fresh- and salt-water environments for pools, marine applications, specialized uses in the military, and more.

**Hoge:** We interact with customers as much as possible and LISTEN; a question, problem, or even a complaint may be an opportunity to identify and address a customer's need. We visit customer sites whenever possible and are regular participants in the STMA and affiliated chapter trade shows. The underlying mission is to understand customer needs and to fulfill them. If we employ that approach successfully, the relationships with turf managers will be successful as well.

## What are the main criteria that must be met to green light the new product development process?

**Glassett:** Progress commands that synthetic turf, flooring, sport and



## TORO NAMES INNOVATIVE NEW MACHINE

Earlier this year Toro invited turf managers and superintendents to help name a new turf maintenance machine, nicknamed “Project Delta.” After reviewing thousands of submissions, Toro has selected the name for the revolutionary new machine — the Toro Outcross 9060. Curt Sheffer, the superintendent who submitted the Outcross name option, manages the Plantation Course at Edisto in Edisto Beach, SC. According to Sheffer, the idea for the name came to him after seeing the unit first-hand. Toro described the Outcross 9060 as bringing a new level of simplicity, versatility and efficiency to maintenance tasks that have long been considered cumbersome, difficult and inefficient.

“When I saw how Toro was cross-breeding a new super-machine by combining the best parts of a tractor and a utility vehicle, I knew it should be named ‘Outcross,’” said Sheffer.

Toro made their selection based on a number of factors including creativity, suitability for the product and compatibility with the Toro brand.

“We were immediately drawn to the name ‘Outcross’ because of its creativity and alignment with the features and benefits of the product,” said Noah Wahl, global product marketing manager at Toro. “Toro is excited to bring this pioneering product to the market with a name that fits its purpose-built, all-season functionality. This product will truly optimize the way turf maintenance operations are managed.”

recreational surfaces, plus their installation procedures keep changing and improving. A superior adhesive today may become obsolete tomorrow, so continuously designing new adhesives to keep pace with progress is important. For example, installers were often restricted by the narrow temperature range in which most outdoor adhesives can be used. This created a need for adhesives that can be used to install turf all year round, in sub-freezing temperatures to hot desert-like conditions. New adhesives have been developed to meet this need. Generically, there are now one-part, solvent based moisture cured urethane adhesives that allow installations to take place in any temperature the installer can work.

Superior adhesives like these are usually developed with the emphasis on quality, not price, using only the highest quality raw materials in the production process. Adhesives formulated for quality regularly outperform cheaper adhesives in handling during installation, then in long-term durability and aesthetic appeal afterwards.

**Hoge:** Our new product process ideally works as follows:

Identify a customer need that none of our existing products can meet. One comment by a customer may start the process, and then we ask other customers if they have the same need.

Business analysis. Through research we determine if this is a need with worthwhile market potential. If so, we identify

competitive products and pricing. Then, estimates of potential sales and profitability are developed.

Product development. If indicators are positive, we design the product to meet the customer need. Ideally, it would be manufactured with existing machinery, minimizing the need for new capital equipment.

Test. Manufacture prototype(s) and test; for our winter turf blanket/growth cover, CoverSports contracted with Penn State University’s Valentine Turfgrass Research Center for a credible, independent test. The results proved the product’s effectiveness through an authoritative, respected source.

Test market. Sell the product on a limited scale. It allows us to obtain customer feedback, modify the product, and identify any issues before full commercialization.

Full commercialization. The product is launched with a complete marketing plan.

Performance evaluation. After 1 year, we measure sales and profitability vis-a-vis goals. We evaluate the results and develop a marketing plan for the future.

It takes a few years from concept to commercialization.

**Williams:** Once we have a new product idea, we have to make sure there is going to be enough demand for that product before we move forward with the R&D phase. The product needs to service a good majority of our customers or potential customers. In our development phase, we have to make sure that we’re going to be able to produce the product in a cost-effective way. Lastly, we test our products for extensive periods of time before we’ve perfected the formula and we are ready to release it to our customers.

Our Removable Ready to Use Artificial Turf Paint is a perfect example of our new-product development process. We determined there was a viable market and set to work to develop a paint that did exactly what our artificial turf customer base was looking for: the paint went on easily and looked spectacular, held up amazingly under the stress of the event, and removed like it had never even been on the turf in the first place. The development phase was almost 3 years long and then we tested the paint for another year before we were 100% happy with every aspect of the product. **/ST/**



► FIELD

# MERLO FIELD

## UNIVERSITY OF PORTLAND

► LOCATION

Portland, OR

- **Category of Submission:** College Soccer
- **Sports Turf Manager:** Kevin White
- **Title:** Athletic Field Manager
- **Education:** B.S. Ornamental Horticulture & Turfgrass Management
- **Experience:** I received my first exposure to sports turf maintenance under the late Dr. Kent Kurtz at Cal Poly Pomona, when we would perform an annual renovation of Scolinos Field. In 2010, I was hired at Seattle University to maintain their athletic facilities, and ultimately earned the 2013 FOY award for Championship Field. For the past two seasons, I have been at the University of Portland, where I am able to expand my sports turf management skills by not only maintaining fields for an NCAA Division I program, but also by preparing Merlo Field for hosting the USL Portland Timbers 2 home game schedule, and numerous other professional and international soccer organization trainings and camps.
- **Original construction:** 1990

- **Rootzone:** 100% sand
- **Turfgrass Variety:** Merlo Field consists of approximately an 80/20 mix of perennial ryegrass and Kentucky bluegrass. Specifically, it is a combination of RPR, SR4600 and Futura 3000 Perennial Rye, and HGT Kentucky bluegrass.
- **Overseed:** Overseeding is carried out throughout the year to reestablish thin areas, and to introduce new and improved varieties of perennial ryegrass into the existing stand of cool-season turf.
- **Drainage:** Herringbone system with 4-inch perforated laterals spaced 15 feet on center, 18 inches below surface that drain into a 6-inch main header.

### Why STMA should consider your field a winner?

Merlo Field is a 4,892-capacity soccer-specific stadium on the campus of the University of Portland, located in Portland, OR. It serves as home to the Portland Pilots soccer teams, and in 2015, as host to the

The Field of the Year Awards program is made possible by the support of sponsors Barenbrug USA, Carolina Green Corp., Ewing, Hunter Industries, and World Class Athletic Services.



Portland Timbers' USL side Timbers 2. Merlo Field is a sand-based, natural grass pitch with perennial ryegrass and Kentucky bluegrass that measures 120y long by 75y wide. Originally constructed in 1990, the storied pitch has hosted NCAA Division I Tournaments, as well as international friendlies, exhibitions and scrimmages with such clubs as Manchester City, Bayern Munich and most recently, Inter Milan. It is an honor to be part of a program and entrusted to care for a facility with such a rich tradition and history of soccer. It truly helps define my role and provides a greater understanding for the sacrifices I make, and the time I invest in maintaining this beloved venue.

The defining characteristic of this pitch is resiliency, its ability to bounce back to quality form after being put through the paces, and it is tasked with handling an intense schedule of events, beginning in February and lasting well into November or potentially December depending how well our teams finish their seasons. With weather patterns continuously changing, maintenance and sustaining playability can pose a challenge. For instance, this past year, Portland went from experiencing its wettest winter on record to facing the hottest summer in recorded history. To make an already challengingly hot summer for maintaining cool-season turf more exciting, the only pump that supplies water to the entire campus went down and was out of service for five weeks. Scrambling to find a solution for providing water, the initial response was to syringe the field continuously via a 2200-gallon water truck supplied (with operator) by the university's Physical Plant. The next course of action consisted of tapping into the mainline on the field and plumbing a cam-lock connection fed by a 2-inch hose directly from the water truck to energize the irrigation system. This worked well, as we could adjust the psi to achieve adequate coverage and supply enough water to keep things alive, but it required a great deal of time and labor. Eventually the Physical Plant acquired a permit to temporarily pull water from a nearby hydrant. This eliminated the need for the

water truck and operator, but left me the burden of attaching the hose, backflow and meter to the hydrant anytime I needed water, including before each game. As a single person maintenance department, I was essentially tethered to this setup for about 2 weeks until the pump was restored.

To add insult to injury, during the water outage, we suffered an outbreak of Gray Leaf Spot and an infestation of Bluegrass Billbug larvae. However, throughout this crisis, I am proud to say we did not lose any turf, we did not have to adjust the game schedule, and I did not lose any hair, at least no more than normal! I learned a great deal about how far I could push the field the brink of death, as well as how much stress I can handle. I love what I do!

**SportsTurf: What are your main responsibilities? And what does a regular working week entail, if a "regular week" even exists?**

**WHITE:** I am responsible for all field maintenance duties on and inside our athletic fields, which includes The Clive Charles Soccer Complex, consisting of Merlo Field, Pru Pitch, an artificial multi-purpose field, and a 55,000 sq.ft. natural grass practice field. Additionally, I'm responsible for Joe Etzel Field, an artificial baseball field. These responsibilities include cultural practices, IPM, fertility management, irrigation management, equipment maintenance and management, personnel management, budgeting, project management, communications, etc.

Regular depends on what part of the season we are in. It could be as regular as mowing every other day, to weekly aeration, topdressing and fertilizing during the heart of soccer season in late summer/fall, or grooming and striping the baseball field in late winter/spring. Obviously, weather plays a pivotal role in what I can accomplish, so I need to be prepared for anything...sometimes the best maintenance is no maintenance.

**ST: How do you keep up-to-date re emerging technologies, best practices, etc.?**

**WHITE:** Social media has made it easy to keep up with technology. As soon as someone tries something new, you can bet it will be plastered all over social media – which is great! It used to be you had to wait until your next issue of *SportsTurf* showed up in the mail. Don't get me wrong, I still anticipate receiving each new edition. Call me old fashioned, but I enjoy flipping actual paper pages over burning my retinas staring at an electronic screen.

**ST: What piece of advice do you wish someone had given you when you were starting out?**

**WHITE:** More like what piece of advice do I wish I had listened to more closely! When I was going through Cal Poly Pomona, 99% of us were heading into golf. There was one guy who was serious about sports turf, and we used to give him a hard time about only having a few acres to care for versus hundreds (as if more acreage makes you a better turf manager or something). Well, not very many of our classmates are still in the industry, and now that I've been on the sports turf side for a while, I clearly see what drew him to it. I wish I had listened to that guy a little more closely to get here just a little sooner in my career. Thanks, Shaun, you must be laughing at us all now. Good luck with the Chargers!



**ST:** How has your career benefitted from being a member of STMA?

**WHITE:** I joined the STMA in college, at the demand of Dr. Kurtz, and didn't really have much involvement until I began working in sports turf in 2010. My first STMA conference was in Long Beach in 2012, and since then, I have had so many meaningful interactions and experiences with the professionals of this amazing organization; the benefits are immeasurable, and that continues to build each year.

**ST:** How do you think the profession and industry will change in the next 10 years?

**WHITE:** I'd like to think with the technology and innovation that is coming at us rapidly, we will see the resurgence in natural grass sports fields we have been talking about for several years now. I like the idea of having a marketing strategy for natural fields, to compete with the artificial industry. I also think it will be interesting to see where this new generation of hybrid turf systems goes, and to see if it takes off as well here as it has across Europe. A lot of great research is going on right now, and I'm excited to see the results. Make America Grass Again!

**ST:** How has social media impacted your work?

**WHITE:** Social media has been a great tool for me, not only for displaying my work, but for also viewing the amazing work of the talented men and women of this industry across the globe. It's also proven to be extremely useful for solving problems, both turf and equipment related. I have used Twitter to help fix several pieces of equipment, for example.

**ST:** What are your passions and interests outside of work?

**WHITE:** We don't have much time off together, so I love any chance I get to spend time with my wife, Carol. I am passionate

about this industry and enjoy reading turf-related research and trade magazine articles. I'm also a drummer, and have an electronic drum kit set up; it is the best therapy! I love golf, though I don't get out often, nor do I play very well, but I find peace on a golf course, especially in the morning. **/ST/**



## Merlo Field Maintenance Plan

### JANUARY

- ▶ Aerate: 0.5" solid tines @ 2.5" x 4" spacing for drainage
- ▶ Rotate grow covers
- ▶ Rotary mow to clean up debris as needed
- ▶ Attend STMA Conference
- ▶ Begin prep for MLS camp in February
- ▶ Apply Foliar app: 0.06#/N/M
- ▶ Apply ZeroTol @ 8.35oz./M

### FEBRUARY

- ▶ Test Soil Topdress @ 30T USGA Sand & Drag
- ▶ Apply Foliar app @ 0.06#/N/M
- ▶ Reel mow @ 1.0" followed by rotary for debris (every other day during camp)
- ▶ Prep & Paint for Chicago Fire/Minnesota United preseason camp (2 wks)
- ▶ Apply granular 20-2-20 @ .75#/N/M
- ▶ Prep & Paint for UP Men's Soccer Scrimmage w/ Chicago Fire
- ▶ Apply Foliar app @ 0.07#/N/M
- ▶ Aerate: 0.5" solid tines @ 2.5" x 4" spacing
- ▶ Rotate grow covers to high wear areas
- ▶ Mow weekly post camp

### MARCH

- ▶ Apply Foliar app @ 0.03#/N/M
- ▶ Prep & Paint for UP Men's Soccer Camp (1 wk)
- ▶ Aerate: 0.5" solid tines @ 2.5" x 4" spacing
- ▶ Apply granular calcium product @ 10#/M
- ▶ Set HOC on reel mower @ 0.9375" (mowing at least 3x/wk)
- ▶ Prep & Paint for Seattle Reign FC camp (4 days)
- ▶ Apply Soil app @ 0.01#/N/M
- ▶ Re-sod North Goalmouth damage following Reign FC
- ▶ Camp Apply Foliar app @ 0.03#/N/M

### APRIL

- ▶ Prep & Paint for Up Men's Soccer & USL Timbers 2 games
- ▶ Apply Foliar app @ 0.02#/N/M
- ▶ Drag field w/spring-tine attachment & rotary mow debris
- ▶ Prep & Paint for UP Men's/Women's Double Header + USL Timbers 2 games
- ▶ Apply Foliar app @ 0.05#/N/M
- ▶ Prep & Paint for USL Timbers2 game
- ▶ Fraze mow field @ 7mm
- ▶ Drag w/Spring-tine rake (2x)
- ▶ Verticut edges and transitions (2x) & vacuum debris
- ▶ Apply Foliar app @ 0.02#/N/M
- ▶ Seed: Kentucky bluegrass @ 3#/M & Perennial Ryegrass @ 12#/M
- ▶ Apply Soil app @ 0.005#/N/M
- ▶ Topdress @ 45T USGA Sand & Drag
- ▶ Apply Granular 5-28-0 @ 0.5#P/M & 20-2-20 @ .75#/N/M
- ▶ Grind reels

### MAY

- ▶ Apply Foliar app @ 0.06#/N/M
- ▶ Mow @ 2 weeks post
- ▶ Fraze mow (then 3x/wk to promote density)
- ▶ Apply Foliar app @ 0.03#/N/M
- ▶ Aerate: 0.5" solid tines @ 2.5" x 3" spacing
- ▶ Apply Soil app (no N)
- ▶ Apply granular 10-2-8 (organic) @ 0.7#/N/M
- ▶ Apply Foliar app @ 0.125#/N/M + Ethephon

- @ 4.0oz/M + Trinexapac-ethyl @ 0.2oz/M
- ▶ Topdress @ 30T USGA Sand & Drag
- ▶ Raise irrigation heads to 0.25" below surface grade
- ▶ Prep & Paint for U15 & U16 US Soccer Youth National Camp: (2wks)
- ▶ Apply Foliar app @ 0.05#/N/M

### JUNE

- ▶ Aerate: 0.5" solid tines @ 2.5" x 4" spacing
- ▶ Apply Propiconazole @ 10z/M & Chlorothalonil @ .5oz/M Apply Carbaryl @ 5.6oz/M + Surfactant @ 0.37oz/M
- ▶ Apply Foliar app @ 0.02#/N/M + Ethephon @ 4.0oz/M + Trinexapac-ethyl @ 0.2oz/M
- ▶ Aerate: 0.5" solid tines @ 2.5" x 4" spacing
- ▶ Prep & Paint for USL Timbers2 game Prep for UP Men's Soccer Camps (2wks)
- ▶ Apply Foliar app @ 0.16#/N/M
- ▶ Drag field w/spring-tine attachment & rotary mow debris
- ▶ Apply Fluxapyroxad/Pyraclostrobin @ 0.45oz/M
- ▶ Apply Foliar app @ 0.05#/N/M + Fluprimidol/Trinexapac-ethyl @ 0.35oz/M
- ▶ Prep & Paint for UP Women's Soccer Camp (1wk)

### JULY

- ▶ Drag field w/spring-tine attachment & rotary mow debris (weekly) Prep & Paint for UP Men's Soccer Camp (1wk)
- ▶ Apply Foliar app @ 0.05#/N/M
- ▶ Prep & Paint for USL Timbers2 game
- ▶ Prep for UP Women's Soccer Camp (1wk)
- ▶ Aerate: 0.5" solid tines @ 2.5" x 4" spacing
- ▶ Apply Soil app @ 0.08#/N/M + Surfactant @ 0.37oz/M Prep & Paint for USL Timbers2 game
- ▶ Apply Iprodione/Trifloxystrobin @ 7.0oz/M
- ▶ Prep & Paint for Inter Milan Training Camp (1wk) + UP Men's Soccer Camp (1wk)
- ▶ Prep for UP Men's Soccer Scrimmage vs. Inter Milan
- ▶ Apply granular 25-3-15 @ .75#/N/M
- ▶ Topdress @ 30T USGA Sand & Drag
- ▶ Apply Foliar app @ 0.10#/N/M
- ▶ Prep & Paint for UP Men's Soccer Camp (1wk)
- ▶ Prep & Paint for Elite Clubs National League Camp (1wk)

### AUGUST

- ▶ Drag field w/spring-tine attachment & rotary mow debris (weekly) Prep & Paint for USL Timbers 2 games
- ▶ Apply Foliar app @ 0.10#/N/M
- ▶ Aerate: 13/16" Hollow tines @ 2.5" x 2.5" spacing
- ▶ Drag to bust plugs & sweep seed: Perennial Ryegrass @ 5#/M
- ▶ Topdress @ 30T USGA Sand & Drag
- ▶ Apply Soil app (no N)
- ▶ Apply Foliar app @ 0.70#/N/M + Fluprim/Trinex @ 0.25oz/M + Ethephon @ 2.5oz/M
- ▶ Prep & Paint for UP Women & Men's exhibition games + USL Timbers 2 games
- ▶ Apply granular 7-7-7 (bridged organic) @ 0.7#/N/M
- ▶ Apply Soil app (no N) + Surfactant @ 0.37oz/M
- ▶ Prep & Paint for UP Women & Men's Soccer games (3x)
- ▶ Apply Foliar app @ 0.06#/N/M

### SEPTEMBER

- ▶ Test Soil
- ▶ Drag field w/spring-tine attachment & rotary mow debris (weekly)

- ▶ Prep & Paint for UP Men's Nike Invitational Soccer Tourney (2 days)
- ▶ Prep & Paint for USL Timbers 2 games
- ▶ Topdress 15T USGA Sand & Drag
- ▶ Prep & Paint for UP Women's Nike Invitational Soccer Tourney (2 days)
- ▶ Re-sod North Goalmouth
- ▶ Apply Foliar app 0.07#/N/M
- ▶ Aerate: 13/16" Hollow tines @ 2.5" x 2.5" spacing
- ▶ Drag to bust plugs & sweep seed: Perennial Ryegrass @ 5#/M
- ▶ Topdress @ 30T USGA Sand & Drag
- ▶ Apply granular Calcium/Potassium product @ 5#/M
- ▶ Apply Soil app (no N) + Surfactant @ 0.37oz/M
- ▶ Prep & Paint for USL Timbers2 & UP Men's Soccer games
- ▶ Apply Foliar app @ 0.10#/N/M
- ▶ Prep & Paint for UP Women's Soccer game
- ▶ Grind Reels

### OCTOBER

- ▶ Apply Foliar app @ 0.06#/N/M
- ▶ Prep & Paint for UP Women's Soccer game
- ▶ Drag field w/spring-tine attachment & rotary mow debris
- ▶ Aerate: 0.5" solid tines @ 2.5" x 4" spacing
- ▶ Apply Ethofumesate @ 32oz/M
- ▶ Apply Soil app @ 0.005#/N/M + Surfactant @ 0.37oz/M
- ▶ Apply Foliar app @ 0.10#/N/M Prep & Paint for UP Women's Soccer games (2x) \*Heavy rains flooded portion of field; hand forking & squeegee = drained in 30min.
- ▶ Spot topdress @ 10T USGA Sand
- ▶ Aerate: 0.75" solid tines (Bayonet) @ 2.5" x 4" spacing
- ▶ Prep & Paint for UP Men's Soccer game

### NOVEMBER

- ▶ Seed: Perennial Ryegrass @ 5#/M
- ▶ Aerate: 0.5" solid tines @ 2.5" x 4" spacing
- ▶ Apply Foliar app @ 0.10#/N/M Prep & Paint for UP Men's Soccer game
- ▶ Apply Soil app (no N) + Surfactant @ 0.37oz/M
- ▶ Prep & Paint for UP Men's Soccer game
- ▶ Apply Ethofumesate @ 32oz/M
- ▶ Apply granular 20-2-20 @ .75#/N/M
- ▶ Recycle Dress Field Drag field w/spring-tine attachment & sweep debris
- ▶ Seed: Perennial Ryegrass @ 5#/M (heavier in high wear areas) Apply Iprodione/Trifloxystrobin @ 7.0oz/M
- ▶ Use grow covers on high wear areas

### DECEMBER

- ▶ Rotary mow to collect debris (weekly)
- ▶ Aerate: 0.5" solid tines @ 2.5" x 4" spacing for drainage
- ▶ Apply Surfactant @ 0.37oz/M
- ▶ Rotate grow covers
- ▶ Make irrigation repairs/adjustments
- ▶ Deep clean equipment & make repairs
- ▶ Review/adjust maintenance & budget plans for next season
- ▶ Attend local seminars
- ▶ Take time off
- ▶ Grind Reels









## Q&A with DR. GRADY MILLER

Professor,  
North Carolina  
State University

### Questions?

Send them to Grady Miller at North Carolina State University, Box 7620, Raleigh, NC 27695-7620, or email [grady\\_miller@ncsu.edu](mailto:grady_miller@ncsu.edu)

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



# What to do with hurricane-soaked fields?

**Q: ALL OUR FIELDS ARE SUPER-SATURATED FOLLOWING THE LAST HURRICANE. WE ARE THINKING ABOUT OVERSEEDING OUR BERMUDAGRASS FIELDS THIS FALL. WHAT ARE SOME CONSIDERATIONS GIVEN OUR WET CONDITIONS GOING INTO FALL?**

**A:** It seems this has been a year of extremes in weather. Parts of Texas, Louisiana, and Florida experienced high rainfall totals before the hurricanes arrived, which then resulted in record rainfall and flooding. Move further up the US into North Carolina and it was a fairly normal year for rainfall until mid-summer and then the rains events were scarce. Those that did not have irrigation on their properties have really suffered.

Most of the time I get wrapped up in what is going on around me and do not think about issues in other regions. But this year, with significant hurricanes hitting the area I grew up in (western Louisiana and east Texas) and my former residence (Florida), there was no avoiding the scenes of misery that much of Gulf Coast was experiencing. All one had to do was tune into the nightly news.

The question about overseeding ryegrass on these saturated fields has come up before. Of course it is very difficult to do anything to flooded fields until water recedes. Once the water recedes, assess the field's integrity since flowing water can be pretty erosive. Also check for turf damage. Some silt, clay, and debris may need to be removed from the surface. These can be removed with shoveling, hosing, power washing, etc. Just be sure that the field will support whatever equipment you use without rutting. In some cases debris and soil material can be blown off the surface with a blower. The airflow from the blower can also hasten the soil drying process.

Given enough time, bermudagrass will grow back from almost any flooding damage. But if the damage is more than just a thin turf and time is an issue, it may be better to start over completely. If the damage is not too severe, begin aeration once the area can support a lightweight aerifier or tractor-mounted aerifier. Not only will this alleviate compaction, but also it will help break up any soil layers and get more oxygen into the rootzone. If the flooding was associated with a salt-water storm surge, then leaching the saltwater out of the rootzone may be necessary. Additional rainfall after a storm surge may begin to "self-flush" the rootzone. In the absence of rainfall, the irrigation system may be used to dilute and move the salts below the rootzone.

Since the last few storms this year came late in the summer to early fall, overseeding can be

used to improve field playability until next spring or summer. The overseed will help absorb some of the extra moisture and the actively growing roots will help keep the soil pores open. We have found that ryegrass roots significantly increase soil shear strength compared to semi-dormant or dormant bermudagrass. The result can be turning a loose field surface into one with great stability. Using a quality perennial ryegrass can provide a very consistent playing surface, even when the bermudagrass underneath is patchy.

I have also seen bermudagrass continue growing (recovering) in a warm fall and winter even with it fully overseeded with perennial ryegrass. But this is not always the case. Once it gets cold enough the bermudagrass will stop growing. In the spring the competition from the overseed can potentially weaken bermudagrass due the competition for light. Be sure and start managing the bermudagrass when it starts greening up. A little stress on the ryegrass can help speed the transition. But most importantly, be ready to honestly assess the field in late spring because field renovation may be necessary. Too many times people play on great-looking overseeding fields and are shocked when the overseed dies out and the bermudagrass underneath looks so bad. They forget what the bermudagrass looked like before the overseed was put down.

Some other concerns after flooding include Pythium blights, root rots, denitrification, and added weed pressure. For the first two, consider using a preventative fungicide program. To combat nutrient loss from denitrification, you may want to spoon-feed your turfgrass. This spoon-feeding approach can also keep your turfgrass growing into the fall if weather permits. The increased turfgrass recovery may offset any potential increase from winter damage.

Lastly, widespread flooding results in more rapid degradation of preemergence products. So, consider the condition of the turfgrass and the need to balance weed control. Over the next 6 months, there is likely going to be a need for more postemergence weed control than normal. With a potential need to re-grass the field's surface in the spring, plan your future preemergence program to allow for re-seeding and/or re-sodding. **/ST/**

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