4 TOWNS AND CITIES.
3 DOZEN SPORTS TURF FIELDS.
1 BOOTH GIVES THEM A VOICE.

There are stories to be told at booth #219.
All over the country, one episode after another, sports turf fields are talking. Are you listening? The Chicago Park District is. Your field is telling you to come to booth #219 at the Sports Turf Management Association Show and give it a voice.

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On the cover:
The Sports Turf Managers Association’s 27th Annual Conference and Exhibition will be held in San Diego January 19-23, 2016. For information on how to register or exhibit, please see www.stma.org or call 800-323-3875.
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PROTECT YOURSELF OUTSIDE

Yeah, we all know, use sunscreen, blah, blah, blah. But we’re here to remind you yet again anyway.

Supervisors, looking out for your people in this regard is part of your job; recognize the environmental and workplace conditions that may be dangerous and learn the signs and symptoms of heat or cold-induced illnesses and injuries and what to do to help.

COLD
Encourage workers to wear proper clothing for cold, wet and windy conditions, including layers that can be adjusted to changing conditions. Be sure workers in extreme conditions take a frequent short break in warm dry shelters to allow their bodies to warm up. Try to schedule work for the warmest part of the day.

Remember, workers face increased risks when they take certain medications, are in poor physical condition or suffer from illnesses such as diabetes, hypertension or cardiovascular disease.

SUN
Sun is the primary cause of skin cancer, and that means that those who work outside most of the time are at high risk for this disease. Here are some prevention guidelines:

A shady spot should be available for lunch and coffee breaks.

If possible, do tasks requiring outdoor work before 10 am and after 4 pm, to avoid the hours of greatest sun intensity. I know this may be laughable to many readers!

Wear protective clothing and cover the skin. Avoid clothes that you can see light through. If light is getting through, the ultraviolet radiation is getting through as well.

If shorts are worn, a pair that approaches the knee will offer more protection than a shorter pair. A collar will protect the skin on the back of the neck.

Wear a hat and sunglasses (that filter out UV rays); broad-brimmed hats are best. The brim should be at least 3 inches wide. If a lot of bending is required, have a flap on the back of the hat, which will keep the sun off the back of the neck.

SUNSCREEN
Use an SPF 15 or higher sunscreen before going outdoors. Use a water-resistant sunscreen when working with water or when perspiring. Choose a gel, stick, or lotion form of sunscreen according to personal preference; no one form is more effective than another. Reapply sunscreen every 2 hours. If sweating freely, reapply more often. Make sure the face, lips, neck, ears, arms and back of the hands are protected. Ultraviolet radiation bounces off water, sand, concrete, light-colored surfaces and snow. People who work near these areas will need to take extra care.
Through gratitude is a cherished trait year-round, the Thanksgiving season brings it back to front and center. If you stop to think about all the people who have helped you along the way the list can grow fairly long.

In my case I can start with my parents, Keith and Cynthia Johnson, who helped mold me into the person I am today. I have my best friend from the Army, Jeff Bleile, to thank for going to college who told me that I would be wasting potential opportunities for not going. Steve Hutchison gave me my first job in this industry and opened up the possibility for a career in sports turf. Bill Paprocki gave me sound advice when I was starting out and steered me toward Penn State’s online turfgrass program. My longtime assistant, Derek Paris, has been with me almost from the beginning and has been instrumental with his keen insight into how to improve our practices. Recent additions to the crew, Bart Bartelme and Joel Hunt, each bring their own talents to make us a complete team while we’ve increased our workload.

For continual improvement and professional growth through the years, I’d have to thank the STMA and its members for sharing their wisdom, encouragement, and pushing me to improve each and every year. While many of us can think of that list that has helped us along the way and the crew members who help us achieve our daily goals, we may forget to thank someone else. Our bosses.

For it is our bosses who support our requests for resources, who listen to our pleas of frustration, value our opinion when constructing new facilities, give us encouragement when the going gets tough, and support our professional development by supporting our membership in the STMA.

If they don’t do any of these things, thank them anyway and maybe you’ll catch them off guard, and they will contemplate supporting you in the future.

I’d like to thank Ted Eisenreich, Paul Daniel, Russ Ball, Ted Thompson, Mike McCarthy, and Mark Murphy for supporting our department over the years. Their support of our membership and involvement with the Sports Turf Managers Association has had a direct, positive impact on helping us achieve the best possible playing surface for the Green Bay Packers.

My biggest thanks goes to my peers in this industry all across the different categories that, regardless of their position, shed their egos in a genuine effort to help us become better at what we do. I am extremely grateful for all who have invested their time forming this association and creating the culture that exists today.

This year when you turn in your invoice for your membership and registration to conference, remember to say “Thanks.” Happy Thanksgiving, everyone.
STMA’s 27th
CONFERENCE & EXHIBITION:
JANUARY 19-22, 2016 SAN DIEGO, CALIFORNIA

WHAT YOU NEED TO KNOW
Date: Jan. 19-22, 2016
USA Today rates San Diego a ‘Top 20’ convention city for 2015. CVENT, a technology firm used by meeting planners around the world for booking conventions, ranks it number 4. CVENT tracks more than 5,000 cities across the country to produce its list of the top 50 convention destinations.

Registration Fees: $375 Full Conference package for members ($325 for additional members from the same facility) Fee includes all education sessions, Welcome Reception, Awards Reception and Banquet, Trade Show, Breakfasts, Annual Meeting and lunch, and Online Access to the Education Session Recordings for one year. Price increases to $450 from Dec. 16-31, and to $525, post-Dec. 31.

Host Hotel, Manchester Grant Hyatt, Rate: $199 (valid until Dec. 15) Did you know that the hotel’s average nightly rate currently is $279? STMA negotiated this excellent low rate five years ago!

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### SCHEDULE AT A GLANCE

**Tues., Jan. 19**
- 6:30 - 8 am: Continental Breakfast
- 6:30 am - 5:30 pm: Registration Open
- 7 am - 5 pm: Full Day Seminar-on-Wheels Tour
- 8:30 am - 5 pm: SAFE Golf Tournament
- 11 am - 12 pm: Fun Walk/Run
- 2:30 - 5 pm: STMA Academy - Advanced level education
- 3:30 - 7:30 pm: STMA Certification Exam
- 6 - 9 pm: SAFE Night of Bowling

**Wed., Jan. 20**
- 7 - 8 am: Continental Breakfast
- 7 am - 6:30 pm: Registration Open
- 8 - 9:30 am: Opening General Session
- 9:45 am - 12 pm: Conference Education
- 12 - 2 pm: Break
- 12 - 2 pm: Women’s Forum
- 2 - 5 pm: Conference Education
- 5:15 - 6:15 pm: Conference Networking Sessions
- 6:30 - 7 pm: First Timers’ & International Attendees’ Reception
- 7 - 10 pm: Welcome Reception

**Thurs., Jan. 21**
- 6:45 - 7:45 am: Certification Breakfast
- 7 - 8 am: Continental Breakfast
- 7 am - 6 pm: Registration Open
- 8 - 10:45 am: Conference Education
- 11 am - 1:15 pm: Featured Speaker, Annual Meeting, Lunch
- 1:30 - 6 pm: SAFE Silent Auction (Trade Show Floor)
- 1:30 - 6:30 pm: STMA Exhibition with Dessert & Late Afternoon Reception
- 2 - 4:30 pm: Student Challenge
- 2 - 6 pm: Committee Meetings (Trade Show Floor)

**Fri., Jan. 22**
- 7 - 8 am: Continental Breakfast
- 7 - 8 am: Past President’s Breakfast
- 7 am - 12 pm: Registration Open
- 8 - 10 am: Conference Education
- 10 am - 12:30 pm: SAFE Silent Auction (Trade Show Floor)
- 10 am - 1 pm: STMA Exhibition with Lunch & Innovative Sessions
- 12 - 1 pm: Student Lunch
- 1:15 - 5 pm: Half-day Seminar-on-Wheels Tour
- 1:30 - 2:30 pm: Fun Walk/Run
- 1:30 - 3 pm: Conference Education
- 3:15 - 5 pm: Chapter Officers’ Training
- 6:30 - 10 pm: SAFE Live Auction, STMA Reception & Awards Banquet

**Sat., Jan. 23**
- 8 am - 12 pm: STMA Certification Exam
- 8 am - 1 pm: ASBA Certification Exam

### WHAT’S NEW

In addition to all of the new education sessions, here is what else is new:

**Registration Networking Area** - sponsored by GreenOne Industries
Open during registration hours each day at the conference, come here to meet your colleagues, relax, enjoy a beverage, and share your stories.

**Fun Run/Walk** - Tues., Jan. 19, 11 am and Fri., Jan. 22, 1:30 pm
Rev up and wind down with this pre and post run/walk. It is led by chair Tom Nielsen of the Louisville Bats. Look for signage that shows the starting location.

**Combined First Timers’ and International Attendee Reception**
First-time attendees and our International attendees are invited to attend a special reception on Wed., Jan. 20, 6:30 pm.

**Free Electronic access to all education session recordings with a full conference registration**
Perfect for crew training and viewing sessions that you were not able to attend.

**Free Customized Conference App** - sponsored by Barenbrug, Graff’s Turf, John Deere and World Class Athletic Surfaces
STMA has created an app that will help you plan your conference attendance, build your schedule, rate sessions, download speaker presentations, and much more. Go to STMA.org to download in advance of the conference.
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CONFERENCE PROGRAM

WHO YOU’LL HEAR:
4 Featured Speakers

Wednesday
Richard Kent, Ph.D., University of Virginia, will speak about shoes and field surface interaction. He has worked on the NFL Foot and Ankle Committee since 2008 and chaired the Taskforce to develop the NFL’s Recommended Practices for Gameday Fields.

Daniel Russell, Ph.D., Penn State University, will address the physics and acoustics of baseball bats. His primary research area involves the acoustics and vibration of sports equipment, and he has provided testing and vibration consulting services for several sporting goods manufacturers.

Joel Stitzel, Ph.D., Biomedical Engineering, Wake Forest School of Medicine, will discuss his current research involving crash injury and engineering biomechanics of trauma, automotive safety, and sports and military biomechanics.

Thursday
Timothy Gay, Ph.D., University of Nebraska physics professor and industry helmet consultant, will present on turf, sports, physics, and concussions.

More Speakers You Won’t Want to Miss
Academics, Practitioners and Innovative Companies

Ryan Adams, Iowa State University
Matt Anderson, CSFM, The University of Arizona
Matthew Arms, Spartanburg County Parks Department Tyger River Park
Scott Bills, CSFM, Sports Fields Solutions, LLC
Glen Black, GT Air Inject
Michael Boekholder, Philadelphia Phillies
Jason Bowers, CSFM, Glenstone Foundation
Scott Boyle, University of Tennessee
TJ Brewer, CSFM, Burlington Bees
Tab Buckner, Township of Langley Parks Dept.
Bob Campbell, CSFM, University of Tennessee, Retired

Neil Cathey, SSC Services for Education
Nick Christians, Ph.D., Iowa State University
Carole Daily, Daily HR Solutions
Darian Daily, Paul Brown Stadium
Mike D’Ascanio, Groundskeeper Tech
Massimiliano Del Viva, Ph.D., Green Lab Studio
Samuel Doak, Virginia Tech
Matt Elmore, Ph.D., Texas A&M University
John Fech, University of Nebraska – Lincoln
Amy Fouty, CSFM, Michigan State University
Brad S. Fresenburg, Ph.D., University of Missouri
Lisa Goatley, The Cascade Group
Mike Goatley, Ph.D., Virginia Tech
Gary Grigg, Grigg Brothers
Simon Gumbrill, Stadium Grow Lighting (SGL)
Gerald Henry, Ph.D., University of Georgia
Mark Holder, Roswell Recreation & Parks Department
Matt Hollan, Los Angeles Memorial Coliseum
Bryan Hopkins, Ph.D., Brigham Young University
Brandon Horvath, Ph.D., University of Tennessee
Jared Hoyle, Ph.D., Kansas State University
Brad Jakubowski, Doane College
Gordon Kaufman, III, Ph.D., Grigg Brothers
Alex Kowalewski, Ph.D., Oregon State University
Jason Kruse, Ph.D., University of Florida
Tony Leonard, Philadelphia Eagles
John Mascaro, Turf-Tec International
Andrew McNitt, Ph.D., Penn State University
Troy McQuillen, PERFECT PLAY FIELDS and LINKS
Grady Miller, Ph.D., North Carolina State University
Justin Quetone Moss, Ph.D., Oklahoma State University
Michael Munie, MJM Services, Inc.
Gregg Munshaw, Ph.D., University of Kentucky
Jim Nedin, Jim Nedin Consulting Services
Mary Owen, University of Massachusetts Amherst
Brad Park, Rutgers University
Drew Pinnix, North Carolina State University
David Pinsonneault, CSFM, CPRP, Town of Lexington
Craig Potts, Texas A&M University
Chris Ralston, San Juan Unified School District
Jeff Salmon, CSFM, University of Oklahoma
Chris Segars, Oklahoma State University
John Sorochan, Ph.D., University of Tennessee
Chase Straw, University of Georgia
Barry Stewart, Ph.D., Mississippi State University
Adam Thoms, Ph.D., University of Tennessee
John Torres, Philadelphia Union
Kai Umeda, University of Arizona
Tim Van Loo, CSFM, Iowa State University
Victoria Wallace, University of Connecticut
Clint Waltz, Ph.D., University of Georgia
Rich Watson, Sports Field Managers Association of New Jersey (SFMANJ)
Richard H. White, Ph.D., Texas A&M University
Brian Winka, CSFM, City of Chesterfield Parks Department
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WHAT YOU’LL LEARN:
9 Educational tracks

Agronomic
Tues., Jan. 19
- Plant Soil Interactions

Wed., Jan. 20
- Warm-Season Turf, Cool-Season Turf...Why Not Both?
- Providing for Fertility: Products, Programming and Environmental Protection
- High Traffic and High Expectations
- Managing "The Field" Within the Field

Thurs., Jan. 21
- Should You Fraze Mow?
- Protecting Your Turf - Managing High Event Loads

Fri., Jan. 22
- Aeration / Different Types / Relation Body to Agronomy

Pest Control
Wed., Jan. 20
- Inside Herbicides
- Advanced Weed Control for Athletic Field Turf

Thurs., Jan. 21
- Poa annua Control in Sports Turf Areas

Water - sponsored by Rain Bird
Tues., Jan. 19
- Developing and Implementing Best Management Practices for Sports Field Water Conservation

Wed., Jan. 20
- Managing the Drought as a Public Entity
- Irrigation Water Testing and Interpretation: Case Studies from the Field

Professional Development
Tues., Jan. 19
- Crisis Communications for Sports Turf Managers

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Sports Turf Management: Past, Present, and Future
Preparing for Your Next Career Move

Finding Happiness in a Stressful World
Keys to Success in Media Interviews

Balancing Work and Family

Opening General Session-Biomechanics and Injury
At the Crack of the Bat - The Science of Wood Baseball Bats
Overseeding Selections and Practices to Increase the Performance of Your Field
Shedding Light on Athletic Field Paint and the Turfgrass Response
Virtual Human Models for Biomechanics of Injury Mitigation and Prevention

Shoes and Surfaces: Partners in the Reduction of Injury Risk for Elite Athletes
Evaluating a Hybrid (Natural and Synthetic) Athletic Field System
Turf, Sports, Physics, Concussions, and the Kitchen Sink
University Research Update Panel

Optimizing Mowing and Application Equipment Performance through Sound Maintenance Practices
Is Your Facility Safe?
Who’s Afraid of Calculations?
Tournament Field Preparation for Parks and Recreation Facilities
Healthy turf. Healthy competition.
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CONFERENCE PROGRAM

HOT SPOTS

OPTIONAL EVENTS

EXHIBITOR LIST

Thurs., Jan. 21
- Prioritizing the Little Things That Make the Big Picture
- Cost Analysis & Recordkeeping - What do BMPs Actually Cost You?

Fri., Jan. 22
- Baseball Panel
- Football Panel
- Soccer Panel
- Extreme Weather Panel
- John Mascaro’s Photo Quiz Comes Alive

Construction/Renovation

Wed., Jan. 20
- Renovations and Replacement of McLeod Athletic Park Synthetic Turf Sportsfield
- Managing Renovations In-House

Thurs., Jan. 21
- Natural Grass Fields - From Construction to Performance and Perception
- Field Specifications - Construction & Renovation Planning
- Creating and Correcting a Sports Field Construction Disaster

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Industry Developments

Wed., Jan. 20
- New Trends and Technology in Sports Turf
- Weather Apps: Great Tools for Successful Fields

Thurs., Jan. 21
- Growing Grass from Real Madrid to Green Bay Packers with Innovative Technology

Fri., Jan. 22
- An Update on European Turf Developments
- Technology in the Sports Turf Industry
- Colorant Formulations, Uses, and Science for Turfgrasses

Sustainability

Tues., Jan. 19
- Reducing Inputs and Enhancing Turf Performance through Site Specific Management

Wed., Jan. 20
- Truth: Organics vs. Synthetics
- The Battle of Trenton: A Debate Over Safe Playing Fields

we strive for, athletic field turf managers. It is, without a doubt, the best run trade show of all that we participate in each year, hands down.” - Beacon Athletics

“Diamond Pro strives to provide the highest quality products and education in our industry and feels that the STMA is an excellent platform to showcase our products to a diverse and evolving membership.” - Diamond Pro

“The STMA is important to our company for several reasons. However, most important is the national show is the only show in the country where we can see so many of our customers and similar vendors in one place on an annual basis.” - Pro’s Choice

“Membership in the STMA has enhanced our relationship with sports turf managers, allowing us to gain a better perspective of their unique needs and challenges and how we can work together to address them.” - Aquatrols

CEUs You Will Receive:
CEUs are being awarded from ASBA, GCSAA, IA, NALP, NIAAA, NRPA, PGMS and STMA.

4 Credit hours are being awarded by California for Pesticide Recertification for the following sessions: (Attendees must be in attendance for all sessions to receive credit.)

Wed., Jan. 20
- Inside Herbicides
- Advanced Weed Control for Athletic Field Turf

Thurs., Jan. 21
- Poa annua Control in Sports Turf Areas

NEW PRODUCTS AND TECHNOLOGY YOU’LL WANT TO SEE:

“The National STMA Conference and Trade Show is the most important show Beacon Athletics participates in each year because the attendees best fit the demographic that
EVENTS YOU’LL WANT TO ATTEND (IN ADDITION TO ALL THE EDUCATION)

Diamond Pro SAFE Golf Tournament at Riverwalk Golf Club


Fields, Inc. SAFE Night of Bowling at Tavern Bowl

Tues., Jan. 19 - Includes transportation, dinner, drinks by Beacon Athletics and prizes. Cost: $75 (by Dec. 15)

Seminar On Wheels - 2 days of Off-Site Tours - sponsored by GreenOne Industries and Bush Sports Turf


Fri., Jan. 22 - half day: Tour Qualcomm Stadium and San Diego State University. Cost: $35. Sponsors: Green One Industries and Bush Sports Turf

Welcome Reception - sponsored by The Toro Company and Covermaster

Wed., Jan. 20 - Catch up with old friends and meet new ones while enjoying excellent hors d’oeuvres and beverages.
Awards Reception & Banquet with SAFE Live Auction - Awards Program
Sponsors: Ewing, Carolina Green, Graff’s Turf, Hunter Industries, Pro’s Choice, and World Class

Fri., Jan. 22 - Bid on fantastic stuff while enjoying a reception, followed by a gourmet dinner. Join STMA in recognizing its 2015 award winners.

Chapter Officers Training Session - sponsored by Aquatrols, Hunter Industries, John Deere, Pioneer Athletics and Turface Athletics
Fri., Jan. 22. Chapter board members are invited to participate in a networking and learning session about issues affecting chapters.

Networking Sessions
Wed., Jan. 20. Meet with your peers in your employment category to share issues and discuss solutions.

Student Activities
Students are invited and encouraged to attend all of the educational sessions and other events. Activities specific to students include:
Student Networking, Wed., Jan. 20. Meet your fellow students during this networking session.
Student Challenge, Thurs., Jan. 21. Win $4,000 for your school. Go to STMA.org for more information and to register your team. Sponsored by Hunter Industries and Ewing.
Student Lunch, Fri., Jan. 22. Join your peers for lunch on the trade show floor. Student Challenge winners will be announced post-lunch.

Auction & Raffles
Silent Auction - sponsored by Pioneer Athletics.

Large Item Raffle - Buy tickets throughout the conference. The drawing takes place prior to the banquet on Fri., Jan. 22. Do not need to be present to win.

Live Auction - Fri., Jan. 22. Bid on exciting items such as trips, sports packages, and other highly desired items.

Women’s Forum - sponsored by founding sponsor Hunter
Wed., Jan. 20. All women are invited to attend a networking and learning session, and enjoy lunch.

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No trip to San Diego is complete without seeing the birthplace of California in Old Town, the site of the first Spanish settlement on the U.S. West Coast.

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San Diego has dozens of outdoor activities including top beaches and golf courses. The San Diego Zoo has been voted #1 in the world and its companion facility, Safari Park, offers a distinctively different experience than the zoo.

The city has 15 museums, including the USS Midway Aircraft Carrier, which is right outside the door of the convention center. No trip to San Diego is complete without seeing the birthplace of California in Old Town, the site of the first Spanish settlement on the U.S. West Coast. This area showcases Mexican lore and historical sites, colorful shops, early-California-style restaurants, museums, a theater and the restored Cosmopolitan Hotel.

Just across the Big Bay from downtown San Diego, sits Coronado Island, most notably known for the historic Hotel del Coronado and the distinctive San Diego-Coronado Bridge.

For more information on what to do in San Diego, go to SanDiego.org and download its app.
Can you identify this sports turf problem?

**Problem:** No turf in small square areas  
**Turfgrass area:** College recreational athletic fields  
**Location:** Athens, Georgia  
**Grass Variety:** Tifsport bermudagrass

Answer to John Mascaro’s Photo Quiz on Page 35

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Aquatrols Enterprises ...................................... 606
Lubbock TX
Aquatrols is a premiere water retention product holding 12 times its weight in water.
www.aquatrols.com

AstroTurf ..................................................... 904
Dalton GA
AstroTurf is the original and innovative leader in turf, including hybrid XtraGrass.
www.astroturf.com

Avant Tecno USA .......................................... 833
Arlington Heights IL
Avant offers a line of compact, multifunctional, articulating loaders and attachment. Their size, weight maneuverability, range of attachments and versatility makes them unique.
www.avantecnousa.com

Bannerman LTD ............................................. 710
Rexdale Ontario Canada
Aeration equipment, large turf rollers, topdressing machines, infield groomers, wet and dry liners, overseeding equipment and turf combs.
www.sportsturfmagic.com

Barenbrug USA ............................................. 419
Tangent OR
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 HST Brand of wear tolerant Kentucky bluegrasses are recent top innovations in sports turf performance.
www.barusa.com

Bayer Environmental Science ................................ 444
Research Triangle Park NC
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.bacto@bayer.com

Beacon Athletics ............................................ 713
Middleton WI
Supplies soil amendments, field maintenance equipment, custom netting, padding, windscreen and more.
www.beaconathletics.com

Buffalo Turbine LLC ...................................... 638
Springville NY
Since 1945, Buffalo Turbine has used “Turbine Technology” with our vast number of blowers and sprayers.
www.buffaloturbine.com

Bulldog Field Equipment .................................. 251
Roanoke VA
We offer sports turf field equipment and tools to help sports turf professionals reduce stress, labor and overall equipment costs.
www.bulldogfieldequipment.com

Bush Sports Turf ........................................... 239
Milan IL
Bush Turf provides three dimensional field construction, renovation and design.
www.bushsurf.com

C & H Baseball, Inc. ....................................... 725
Bradenton FL
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

Calcium Products, Inc. .................................... 830
Ames IA
Calcium Products is the industry’s leading manufacturer
and supplier of pelletized calcium based material, including SuperCal SD4, 98G and SuperCal Humic. www.calciumproducts.com

Campey Imants USA ......................... 639
Macclesfield UK
Campey Turf Care Systems is a forwarding thinking UK Company, which distributes sports turf renovation and maintenance machinery across the world. www.campeyimants.com

Carolina Green Corp. ......................... 422
Indian Trail NC
Licensed sports field contractor specializing in the design, construction, renovation and maintenance of native or modified soil and sand based fields. www.cgcfields.com

Covermaster Inc. ................................. 501
Rexdale Ontario Canada
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

CoverSports USA ............................. 310
Philadelphia PA
Manufacturer of ball field covers, winter turf blankets and stadium padding. www.coversports.com

Dakota Peat & Equipment ................. 212
East Grand Forks MN
Manufacturer of top dressing equipment and supplier of peat, blending and testing. www.dakotapeat.com

Dennis & Sisis ..................................... 749
Derbyshire UK
Manufacturer of ground care maintenance equipment suitable for natural and synthetic turf. www.dennisuk.com www.sisis.com

Diamond Pro ...................................... 601
Arlington TX
Provides groundskeepers nationwide a complete line of professional grounds keeping products and equipment. www.diamondpro.com

DLF International Seeds ..................... 305
Halsey OR
The DLF Trifolium Group, of which DLF International Seeds is a member, is the world’s largest producer and marketer of grass and clover seed. From the center of seed production in Halsey, Oregon, DLF International Seeds provides outstanding service to your distribution network. www.dlfis.com

DryJect, Inc. .................................... 113
Hatboro PA
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

Dura Edge Products ......................... 139
Grove City PA
Dura Edge is a natural provider of Engineered Soils for Baseball and Softball fields. www.duraedge.com

**FIGHT WATER WITH WATERLESS**

SAVE PLAY AND WATER WITH INNOVATIVE WATERLESS TECHNOLOGY

Our mission- Advance the Evolution of Soil, helps you seize every second of play on your field, rain or shine. Gain an edge over the competition and the elements with our play saving technologies.

FACEBOOK.COM/STABILIZER SOLUTIONS  800.336.2468 STABILIZER SOLUTIONS.COM

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Earthway Products, Inc. ........................................ 811
New Lenox IL
Earthway is the industry leader in dry and liquid material application technology. A complete line of push, tow, and the new adaptable spreaders.
www.earthway.com

EarthWorks ..................................................... 634
Easton PA
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

ECO Chemical, Inc. ........................................... 119
Seattle WA
ECO Chemical is an environmentally conscious company committed to providing a complete turf paint system. We specialize in natural grass paint and extraction equipment.
www.eco-templine.com

Ecologel Solutions, LLC .................................... 126
Ocala FL
Ecologel Solutions, LLC is a company specializing in the productions of environmentally responsible solutions for the sports turf, landscape and agricultural markets. Ecologel’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.ecologel.com

EnP Turf/ EnP Investments .............................. 900
Columbus OH
Providing foliar fertilizers, soil conditioners and plant biostimulant products that elicit optimal plant health.
www.enpturf.com

Ewing Irrigation & Landscape Supply .................. 600
Austin TX
Ewing is the largest family owned supplier of irrigation for turf and landscape supplies.
www.ewingirrigation.com

EZ-FLO Injector Systems ................................. 348
Rocklin CA
EZ-FLO manufactures patented technology delivery systems to accurately proportion water soluble and liquid products through any irrigation system.
www.ezflofertilizing.com

EZ Hybrid Turf ............................................... 111
Hackensack NJ
Revolutionizing the turf industry, EZ Hybrid Turf manufactures a brand new innovative hybrid turf made of synthetic turf and natural grass.
www.Ezhybridturf.com

Fairmount Santrol Sports & Recreation/ Fairmount Minerals ........................................ 312
Benton Harbor MI
High purity silica sand for sports fields, synthetic turf, and recreational areas.
www.FairmountSantrol.com

FieldTurf/ Grassmaster .................................... 938
Montreal Quebec Canada
The world leader in artificial turf.
www.fieldturf.com

Firstform ...................................................... 651
Warrenton IL
Sportsfield engineering is a product development, engineering and design-build firm, engaged in the design, engineering, construction and construction management of athletic fields and sports complexes.
www.sportsfieldengineering.com

Floratine Products Group ................................. 819
Collierville TN
Agronomic solutions for improved field conditions and enhanced performance.
www.floratine.com

g2 turftools, Inc. ............................................. 825
Athens AL
g2 turftools is a company dedicated to providing precision turf equipment for sports fields and golf courses. It’s 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

Gail Materials ............................................... 730
Corona CA
Leading manufacturer of specialty athletic surface materials, infield mixes, mound clays and warning track mixes.
www.gailmaterials.net

Gill Athletics ................................................. 131
Champaign IL
Gill Athletics empowers coaches with innovative equipment.
www.GillAthletics.com

Graco, Inc. ................................................... 918
Rogers MN
The leader in field marking equipment. Proven quality, leading technology.
www.graco.com

Graft’s Turf Farms, Inc. ................................. 801
Fort Morgan CO
High quality turfgrass suited for golf and athletic surfaces including Short Cut/Low Mow, USGA Spec Sand grown bentgrasses, Texas Hybrids, custom grows and custom harvests. Services include tearouts, installation, preparation and maintenance.
www.graftsfarm.com

Green Valley Turf Co. ................................. 727
Littleton CO
Green Valley Turf Co. is a full service sod farm specializing in premium quality sods for over 50 years. We specialize in sand based sods for the sports and golf markets and sand based big roll sod installation.
www.gvt.net

GreenOne Industries ................................. 806
Highlands Ranch CO
Sports field construction, renovation, maintenance, and drainage company serving the U.S.
www.greenoneindustries.com

GreensGroomer WorldWide, Inc. ............. 519
Indianapolis IN
Manufacture turf-conditioning equipment for grooming, compaction relief, debris removal, and sterilization or natural and synthetic turf surfaces.
www.greensgroomer.com

Grigg Brothers .......................................... 101
Wellton AZ
Grigg Brothers is the premier quality Foliar Fertilizer company in the turf industry.
www.griggbros.com

Gro-Power, Inc. ........................................... 828
Chino CA
Gro-Power Premium Green products developed specifically for the sports turf/golf course markets.
www.gropower.com

Growth Products, LTD ................................. 507
White Plains NY
The liquid solution company, professional fertilizers, micro nutrients and natural organics.
www.growthproducts.com
Harper Industries ................................................................. 712
Harper KS
Manufacturer of debris management equipment.
www.harperindustries.com

Harrell’s LLC ................................................................. 232
Lakeland FL
Harrell’s is a leading producer and distributor of customized agronomic solutions.
www.harrells.com

HJE ................................................................. 626
Madison GA
HJE is a custom fertilizer producer covering all markets in the United States.
www.hjefertilizer.com

Holganix ................................................................. 104
Glen Mills PA
Holganix is a 100 percent organic bio-nutritional product that promotes strong plant health by naturally increasing resistance to disease and insect damage through significant root and cell wall development.
www.holganix.com

Hunter Industries ................................................................. 313
San Marcos CA
Hunter is a world class manufacturer of efficient irrigation products providing the most effective solutions for sports turf worldwide.
www.hunterindustries.com

Hydraway Drainage Systems ................................................................. 408
Bellville IL
Sports Turf drainage systems for natural & synthetic turf.
www.hydraway.net

IntegraTurf, Inc. ................................................................. 826
Albany OR
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

Intelligro ................................................................. 733
Mississauga Ontario Canada
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.intelligro.com

Jacklin Seed Company ................................................................. 547
Beavercreek OR
Producers and marketers of world class turf seed.
www.jacklinseed.com

Jacobsen, A Textron Company ................................................................. 439
Charlotte NC
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

John Deere ................................................................. 219
Moline IL
John Deere is an industry leader in the manufacture of a broad line of quality precision turf maintenance equipment, tractors and utility vehicles. Unparalleled parts and service support provided by a network of dedicated John Deere dealers.
www.Deere.com

Johnston Seed Company ................................................................. 404
Enid OK
Exclusive producers and marketers of Riviera Bermuda grass, a truly superior quality, cold-tolerant Bermudagrass.
www.johnstonseed.com

K100 Fuel Treatment/Kinetic Fuel Technology ................................................................. 728
Youngstown NY
K100 fuel treatment is for all gasoline and diesel powered equipment, and are formulated for use with all fields.
www.K-100.com
<table>
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<tr>
<th>EXHIBITOR LIST</th>
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<tr>
<td><strong>Liberty Tire Recycling</strong> ............................................. 649</td>
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<tr>
<td>Pittsburgh PA</td>
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<tr>
<td>Liberty Tire Recycling collects car and truck tires, which are processed into various products including sports turf infill, tire derived fuel and rubberized asphalt. <a href="http://www.libertytire.com">www.libertytire.com</a></td>
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<td><strong>Kochek Company, Inc.</strong> .............................................. 844</td>
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<td>Putnam CT</td>
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<td>Manufacturer of quality water movement solutions including hose nozzles. <a href="http://www.kochek.com">www.kochek.com</a></td>
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<td><strong>Kromer Co. LLC</strong> ................................................... 100</td>
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<td>Plymouth MN</td>
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<td>Kromer provides leading edge/state of the art for grooming and painting synthetic and natural turf fields. <a href="http://www.kromerco.com">www.kromerco.com</a></td>
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<td><strong>Kubota Tractor Corporation</strong> ....................................... 201</td>
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<tr>
<td>Torrance CA</td>
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<td>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. <a href="http://www.kubota.com">www.kubota.com</a></td>
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<td><strong>Kwik Goal</strong> .......................................................... 108</td>
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<tr>
<td>Quakertown PA</td>
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<td>Leading manufacturer of high quality, durable, safety tested sports listed equipment. <a href="http://www.kwikgoal.com">www.kwikgoal.com</a></td>
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<td><strong>Landscapes Unlimited, LLC</strong> ........................................ 815</td>
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<td>Lincoln NE</td>
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<td>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. <a href="http://www.landscapesunlimited.com">www.landscapesunlimited.com</a></td>
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<td><strong>Lebanon Turf</strong> ....................................................... 314</td>
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<tr>
<td>Lebanon PA</td>
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<td>Lebanon Turf provides innovative fertilizer, fertilizer/pesticide combination products, biologicals, organics and seed to the professional turfgrass markets. <a href="http://www.lebantomturf.com">www.lebantomturf.com</a></td>
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<td><strong>Liberty Tire Recycling</strong> ............................................. 649</td>
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<tr>
<td>Pittsburgh PA</td>
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<tr>
<td>Liberty Tire Recycling collects car and truck tires, which are processed into various products including sports turf infill, tire derived fuel and rubberized asphalt. <a href="http://www.libertytire.com">www.libertytire.com</a></td>
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<td><strong>Louisville Slugger/ Game Time Sports Systems</strong> ................... 633</td>
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<td>Northbrook IL</td>
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<td>We offer Louisville Slugger branded products that are specialized for Baseball/Softball field grounds keeping. These products are used by professional sports teams, schools, municipalities and youth leagues. Our mission is to bring the highest quality products to every level of play. <a href="http://www.gametimesportssystems.com">www.gametimesportssystems.com</a></td>
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<td><strong>Magnation Water Technologies</strong> .................................... 834</td>
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<tr>
<td>Oakland CA</td>
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<td>Magnation water treatment devices improve water quality and saves water. <a href="http://www.magnitudewater.com">www.magnitudewater.com</a></td>
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<td><strong>Mar- Co Clay Products</strong> ............................................. 450</td>
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<td>Ontario Canada</td>
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<td>80+ years &amp; 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 &amp; conditioners that provide exceptional drainage for less rainouts and are easy to maintain. <a href="http://www.marcoclay.com">www.marcoclay.com</a></td>
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<td><strong>Matrax Inc.</strong> ......................................................... 118</td>
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<tr>
<td>Lutherville MD</td>
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<td>A leader in an all-purpose field protection/preservation system. Our translucent interlocking HDPE mats promotes turf growth and will support6 trains and other heavy rubber tired vehicles. <a href="http://www.matraxinc.com">www.matraxinc.com</a></td>
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<td><strong>Mid-America Sports Construction</strong> ................................. 807</td>
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<td>Lee’s Summit MO</td>
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<td><strong>Missouri Turf Paint</strong> .................................................. 721</td>
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<td>Kansas City MO</td>
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<td>Providers of turf paint, stencils, application equipment and field lining systems. <a href="http://www.missouriturfpaint.com">www.missouriturfpaint.com</a></td>
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<td><strong>The Motz Group</strong> ..................................................... 635</td>
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<td>Cincinnati OH</td>
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<td>Design/build and construction of high performance natural and synthetic turf sports fields. <a href="http://www.themotzgroup.com">www.themotzgroup.com</a></td>
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<td><strong>Mountain View Seeds</strong> ............................................... 449</td>
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<td>Salem OR</td>
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<td>Wholesale supplier of premium grass seed products. <a href="http://www.mtnviewseeds.com">www.mtnviewseeds.com</a></td>
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<td><strong>MTD Products</strong> ....................................................... 701</td>
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<td>Indianapolis IN</td>
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<td>For more than 50 years, MTD has been a leader in designing and building durable, easy-to-use outdoor power equipment. Offering award-winning products designed to meet lawn and garden needs for both residential and commercial products. <a href="http://www.mtdproducts.com">www.mtdproducts.com</a></td>
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<td><strong>Multi-Flow Drainage Systems</strong> .................................... 418</td>
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<td>Prinsburg MN</td>
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<td>The premier name in synthetic and natural turf drainage. <a href="http://www.multi-flow.com">www.multi-flow.com</a></td>
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<td><strong>Nature Safe Natural &amp; Organic Fertilizers</strong> ....................... 824</td>
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<td>Cold Spring KY</td>
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<td>Nature Safe Fertilizers are made from animal proteins, not manure. <a href="http://www.naturesafe.com">www.naturesafe.com</a></td>
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<td><strong>New Ground Technology</strong> ........................................... 832</td>
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<tr>
<td>Pleasanton CA</td>
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<td>NewGround Technology Group (NGTG) specializes in turf printing — lifelike imagery, patterns, logos, markers, etc. Our patented “Terra Printer” utilizes GPS and proprietary turf manipulation technology to quickly and cost effectively apply a wide variety of effects to natural or synthetic turf.</td>
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<td><strong>Newstripe Inc.</strong> ..................................................... 432</td>
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<td>Aurora CO</td>
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<td>Newstripe is a manufacturer of paint striping machines, drags infield groomers, layout systems and logo stencils. <a href="http://www.newstripe.com">www.newstripe.com</a></td>
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<td><strong>Nordic Auto Plow, LLC</strong> ............................................. 910</td>
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<td>West Chicago IL</td>
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<td>Light weight rounded edge plow. <a href="http://www.nordicplow.com">www.nordicplow.com</a></td>
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<td><strong>Nufarm</strong> .............................................................. 814</td>
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<td>Morrisville NC</td>
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<td>Turf and ornamental pesticide and specialty chemical supplier to athletic turf, golf, lawn and landscape, arborist and greenhouse professionals. <a href="http://www.nufarm.com/us">www.nufarm.com/us</a></td>
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Oakwood Sod Farm ............................. 734
Delmar MD
Supplier of high quality sod, including Latitude 36, Northbridge and Patriot bermudagrass. Grown on high sand content soils.
www.oakwoodsod.com

The Ohio State University ................. 922
Columbus OH
The Ohio State University offers industry professionals online courses in athletic field, synthetic turf, and baseball field management.
www.Buckeyeturf.osu.edu

PBI Gordon ...................................... 527
Highlands Ranch CO
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

Peat, Inc. .................................... 339
Elk River MN
A unique golf, sports turf and horticulture peat supply company affiliated with Plaisted Companies which allows them to control the quality of the process from peat harvest to final mix.
www.peatinc.com

Penn State World Campus of The Pennsylvania State University ........ 349
University Park PA
Learn how to manage sports turf in any climate; Penn state World Campus online turfgrass degrees and certificates are identical to those earned on campus and taught by the same respected faculty.
www.worldcampus.psu.edu

Pennington Seed Inc. ......................... 625
Madison GA
Premier grass seed company bringing the most technologically advanced varieties to the sports turf managers since 1945. Also offering fertilizer, chemicals and skinned surface materials.
www.penningtonseed.com

Performance Nutrition (Lidochem) .... 735
New Holland PA
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

Pickseed ........................................ 430
Tangent OR
As a leading developer of high performance turfgrass for more than 30 years, Pickseed has been committed to high standards of performance that ensure reliable product availability, delivery and support.
www.pickseed.com

Pioneer Athletics ......................... 301/401
Cleveland OH
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
Rain Out, LLC .......................... 839
Las Vegas NV
Rain Out is a revolutionary, new product that works for all teams—from the pros to the pee wee. 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

Redexim North America .................. 407
Valley Park MO
Manufacturer of specialized turf and ground care equipment produced especially for aeration, seeding, topdressing and environmental maintenance.

www.redexim.com

Pro-Tech Manufacturing & Distribution .................. 106
Rochester NY
The first containment plow designed specifically for clearing snow away from turf sports fields.

www.snopusher.com

R&R Products ................................. 110
Tucson AZ
R&R products is your complete source for turf equipment, replacement parts, sower equipment, golf accessories driving range, athletic field, irrigation, work wear, safety, tools and maintenance.

www.rproducts.com

Pro’s Choice .............................................. 533
Alpharetta GA
Pro’s Choice is a leading supplier of soil conditioner, mound clay & bricks.

www.prochoicel1.com

Protea ..................................................... 548
Collierville TN
Protea is a supplier of Auxiliary Plant Nutritional Compounds. These are high end products that primarily sell to professionally managed sports fields such as professional football teams practice fields and golf courses.

www.proteabotan.com

Pure Seed ............................................. 133
Hubbard OR
Offering premium quality grass seed to the sports turf industry worldwide.

www.pureseed.com

Quest Products Corporation ............. 249
Linwood KS
Quest Products produces fertilizers and micro-nutrient products to increase turf wear, sustainability and performance.

www.questproducts.us

REHAU .................................................. 230
Leesburg VA
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.

http://www.rehua.com

Seed Research of Oregon ................. 719
Tangent OR
Performance seed company with a full range of products including bent grass, cool season and warm season turf.

www.seedresearch.com

Shaw Sports Turf ......................... 105
Calhoun GA
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.shawsturf.com

Sidekick USA, LLC ............................. 128
Plainfield IL
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 for Safety!

www.sidekickusa.com

Signature Systems Group .................. 810
Flower Mound TX
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

SMG Equipment LLC .......................... 914
Auburn WA
For 40 years SMG has manufactured state-of-the-art equipment and tools for the installation & maintenance of running tracks & synthetic turf fields. SMG is recognized worldwide as the industry leader for quality and service.

www.smgequipment.com

Smithco ............................................. 447
Wayne PA
Manufacturers of premier Sports Turf equipment. We provide solutions for today’s professional grounds manager.

www.smithco.com

Sod Solutions ............................ 210
Mt. Pleasant SC
Researching, developing and promoting improved turfgrass varieties worldwide.

www.sodsinolutions.com

Southern Athletic Fields, Inc. ............. 739
Columbia TN
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.safirt.com

Sports Construction Management, Inc. ...... 805
Lexington NC
Turnkey general contractor specializing in synthetic turf athletic fields.

www.sportsconstructionmanagement.com

Sports Turf Specialists, LLC .............. 345
Iowa LA
Athletic field contractor specializing in renovations, new construction, and maintenance.

www.stsla.net
Sports Venue Padding by Artistic
Coverings ................................................................. 818
Cerritos CA
Leading manufacturer of stadium field padding, rail padding, autogate padding and sponsor graphics.
www.sportsvenuepadding.com

SportsEdge ............................................................. 724
Troutman NC
Manufacturer/supplier of surface and sub-surface drain systems, football goals, soccer goals, and track equipment.
www.sportsedge.com

SportsField Management Magazine ......................... 347
St. Johnsbury VT
We are a monthly trade publication for field care professionals managing playing fields nationwide. Subscriptions are free to qualified subscribers.
www.sportsfieldmanagementmagazine.com

Sportsfield Specialties, Inc. ........................................ 307
Delhi NY
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

SportsTurf Magazine/
EPG Media & Specialty Information Media .................. 747
Plymouth MN
SportsTurf is the official magazine of the sports turf managers association. BPA-audited and appearing monthly, SportsTurf is the industry's leading source of news and information for sports fields and facilities manager.
www.sportsturfonline.com

Spyker Spreaders ..................................................... 333
Jeffersonville IN
Spyker Spreaders designs and manufactures world-class broadcast spreaders. Made in the USA.
www.spyker.com

Stabilizer Solutions ................................................... 525
Phoenix AZ
Infield mixes, mound mixes, custom blends. Worldwide stabilization products.
www.stabilizersolutions.com

Stadium Grow Lighting ............................................. 630
Waddinxveen The Netherlands
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

STEC Equipment ...................................................... 227
Sandy Springs SC
STEC is an industry leader in the manufacturing, distribution, and sales of specialized turf equipment for over 10 years. With the commitment to quality products, STEC is leading the way in importing cutting edge products and ideas from the European marketplace and introducing them to the American turf industry.
www.stecequipment.com

SubAir Systems LLC ................................................. 707
Graniteville SC
Providing solutions to air movement problems above and below the surface.
www.subairsystems.com

Sunbelt Rentals Inc. .................................................. 823
Fort Mill SC
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

Sustane, Natural Fertilizers of America Inc. ................. 451
Connon Falls MN
World wide distributor network in turfgrass construction & maintenance.
www.sustane.com

Syngenta ................................................................. 331
St. Louis MO
Syngenta is the leading manufacturer of fungicides, herbicides, and insecticides and plant growth regulators.
www.syngentaprofessionalproducts.com
Synthetic Turf Council .............................. 745  
Atlanta GA  
Based in Atlanta, the Synthetic Turf Council was founded in 2003 to promote the industry and to assist buyers and end users with the selection, use and maintenance of synthetic turf systems in sports field, golf, municipal parks, airports, landscape and residential applications. Membership includes builders, landscape architects, testing labs, maintenance providers, manufacturers, installation contractors, specialty service companies, as well as academics, researchers, athletic directors, and students.  
www.synthetic turf council.org

Team Premier Pro ..................................... 241  
Charles City VA  
Better performing grasses backed by science.  
www.riversidefarminc.com

TerraMax, Inc. ....................................... 642  
Bloomington MN  
TerraMax manufacturer of TAZO turf products that fix nitrogen and enhances root growth, increasing stress resistance.  
www.terramaxturf.com

Terraplas USA, Inc. ................................. 505  
Kilgore TX  
World’s #1 turf protection company. Protecting your turf since 1994.  
www.TerraplasUSA.com

The Perfect Mound .................................. 912  
Sauget IL  
The Perfect Mound provides 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

The Toro Company .................................. 511  
Bloomington MN  
The Toro Company is a leading worldwide provider of turf maintenance equipment and precision irrigation systems. Toro has built a tradition of world-class service, innovation and turf expertise to help customers’ care for sports fields, public green spaces, golf courses, commercial and residential properties, and agricultural fields.  
www.toro.com

Turf Equipment Source .............................. 138  
Phoenix AZ  
Turf Equipment Source specializes in pre owned equipment and contract services.  
www.turfequipmentsource.com

Turf Time Equipment ................................. 107  
New Holland PA  
Manufacturer of turf maintenance equipment—aerators, top dressers, verticutters, roller and infield drag.  
www.turftimeeq.com

Turf-Tec International .............................. 211  
Tallahassee FL  
We manufacture diagnostic testing equipment for natural and artificial turf.  
www.turf-tec.com

Turface Athletics .................................... 619  
Buffalo Grove IL  
Turface 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 Turface products has superior absorption and drainage to help fight compaction and create safe playing surfaces at all levels.  
www.turface.com

Turfco Manufacturing ............................... 438  
Blaine MN  
For over 50 years, Turfco has provided quality and innovative products for sports turf facilities and grounds.  
www.turfco.com

Turfgrass Producers International ............. 846  
East Dundee IL  
TPI shares knowledge about maintaining healthy natural grass that can withstand the toughest play.  
www.TurfGrassSod.org

Underhill Intl. ...................................... 329  
Mission Viejo CA  
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.underhill.us

University of Georgia ............................. 731  
Athens GA  
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/turf

Ventrac ............................................... 342  
Orrville OH  
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, aerator, leaf blowers and more!  
www.ventrac.com

Vista Seed Partners ................................. 632  
Shedd OR  
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

Vitality Seed ......................................... 729  
Madison WI  
Vitality professional quality seed is proven to deliver high quality and trusted performance for seeding success. Vitality blends & mixtures are formulated by professional seed experts to provide the finest, purest, best performing varieties to meet the quality demands of our customers.  
www.vitalityseed.com

Waupaca Sand & Solutions ........................ 628  
Waupaca WI  
Manufacturer of Sure-Hop Infield Mix, Custom Rootzone Mixes, Mound Clay, and Tread Warning Track Stone  
www.waupacasand.com

West Coast Turf ..................................... 433  
Palm Desert CA  
Growers and installers of premium quality sod and solutions. Also field recycling and resurfacing.  
www.westcoastturf.com

Wiedenmann North America, LLC .......... 127  
Savannah GA  
Wiedenmann is a leader in the manufacturing of turf maintenance equipment for both natural and artificial turf surfaces.  
www.wiedenmannusa.com

Wood Bay Turf Technologies .................... 213  
Alberta Canada  
Cut, rake and roll- maintain your turf service with Wood Bay products.  
www.woodbayturftech.com

World Class Athletic Surfaces ................. 425  
Leland MS  
The world’s premier manufacturer of quality field marking paints. We create custom stencils for field logos.  
www.worldclasspaints.com

www.worldclasspaints.com
These square areas where no turf is present on this university recreational field is the result of wear. This particular TifSport bermudagrass football field is the exact size of a regulation football field and it is open for recreational use to the students during the spring and fall semesters. It hosts tremendous amounts of intramural and competitive clubs sports programs but it also serves as the University of Georgia’s Redcoat marching band’s practice field. The field went unused aside from a very small amount of recreational play during the summer. During the first week of classes the campus received 3-4 inches of rain. This field is native soil and has no subsurface drainage; therefore, it was saturated from all the rainfall. However, the marching band continued to practice. After only a week or so of their practicing for about 4 hours a night, the foot traffic patterns from the marching band became more pronounced due to the saturated conditions. The Sports Turf Manager encourages the turf to grow as much as possible in the mid-spring and early summer with 1 lb./1000 N, and then he spoon feeds as needed. During this down time, they also will core aerate at least twice, and aerate once using solid deep tines. They also topdress with soil and then sand to fill the craters that form where the band leaves these depressions by marching in place.

Photo submitted by Chase Straw, graduate research assistant in Turfgrass Science at the University of Georgia. Joe Morgan is the Sports Turf manager and Groundskeeper III at the UGA Facilities and collaborated on this story.

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@turftec.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.
So, you have finally landed your dream job. This is the job that is going to define your career and where you plan to spend many years. What’s next to do? No matter how comfortable and settled you are, there is always a need for professional development. From the CEO of a company all the way down to the part-time help, professionals everywhere can find ways to continue to develop skills and knowledge in order to better themselves and, as a result, become better employees for their companies.

Professional development starts with a plan. Failing to plan is planning to fail. Plans can be simple or complex depending on how you want to grow. There are many self-assessment tests on the market (the Myers-Briggs Type Indicator and Career Leader assessment are well-known examples). If you have not taken one before, take the time to conduct a self-assessment to determine your work style, strengths, interests, and areas for growth. The results of your assessment will help you to set your goals. Goals can be short term (targeted to be completed within a couple of months or a year) to long term (as many as 5 to 10 years down the road).

Once you have identified your goals, turn them into an action plan. Each goal should have at least one (if not several) steps associated with it that will help you to achieve that goal. You may need to research the different options available to help you achieve your goals.

After you have developed your action plan, the key is to actually take action! You will get where you want to go by developing a schedule that works for you. For example, if you plan to expand your skillset by taking an online class, schedule the class during a time of the year when you can regularly devote one or two evenings a week to doing the classwork. If your goal is broader and more long-term, such as taking on more responsibilities at work, build room in your schedule to make those new responsibilities a part of your daily work.

Regardless of the longevity and scheduling of your goals, an overarching theme in your professional development plan should always be to continue to learn and grow within your job. Throughout your career take opportunities that are available to you and make the most of them. Some actions that could help you reach your goals include:

- Join a professional organization. Groups such as the STMA and smaller more localized sports turf associations offer conferences, valuable contacts, and leadership opportunities. Get involved!
- Take or teach classes. Taking a class can be a great way to learn new skills or brush up on old ones. STMA, local community colleges, and many well-known state schools offer online courses and certificate programs specifically geared towards sports turf managers. If you feel you have mastered much of what is being offered, know that teaching a class or seminar can be just as rewarding as taking one. The audience that you are teaching often brings new ideas or challenges some of the old ones. You don’t have to teach a formal class to have this experience, either. Think about implementing a seminar or workshop series with your own staff. Have members of the staff present on topics about which they are particularly knowledgeable. This not only gives individuals an opportunity to share what they know, but it also builds the team’s knowledge base and exposes you and your group to new and different ways of thinking. Not to mention, staff presentations are great way to spend rainy days!
- Get involved with your community. This may be with a local youth league, a non-profit, or any other local community organization. Sharing your time and expertise is one of the best ways to strengthen the community in which you live while simultaneously broadening your experience base. If you don’t have time to commit to organizations outside of work think about other ways you can participate. Each year the facilities that you maintain host events. These can be opportunities to branch out and get involved on a more short-term basis. For example, Elon University annually

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hosts the local Special Olympics day on its sports fields. Every year the sports turf staff takes 4 hours to volunteer helping special needs athletes get to their events throughout the day.

- Take on new responsibilities. Expose yourself to new experiences by expanding your role. Make new responsibilities a part of your daily work schedule. Show that you are capable of (and can excel at) handling more/different work.
- Read books or articles. There is a great deal of information about sports turf management available; you just have to find it. Sites like the National STMA website and university websites sites, such as North Carolina State’s turfgrass files, provide access to articles written by industry experts and list servs where you can connect with others in the field. Other good sources of information can be printed material; books like *Sports Field* by Jim Puhalla, Jeff Krans, and Mike Goatley, or *Turfgrass Science and Culture* by James Beard are great standards for our industry. In addition, this magazine is full of articles on current industry challenges and solutions by knowledgeable writers with experience in the sports turf world.
- Find a mentor. If your long-term goals are to be at a position above your current one, find someone who is currently in that position and learn from them. This can be done over many months or in a day. Find out what it takes to do their job and what qualifications or skills they possess that make them good at what they do. This can also provide you with a direction for your career and more clear goals and action steps for your development plan.
- Be a part of taking the industry standard to the next level. You have clearly met the qualifications for your job, or you wouldn’t have been hired to do it. Don’t rest on your laurels. Push expectations to higher levels. Strive for excellence as an individual and as a team. Think outside the box and you might just put your program on the map and become an industry expert yourself.

Regardless of your tenure in the field, professional development should be a constant part of your work. In any industry, the leaders who are constantly learning are those that have the biggest impact. Broadening your knowledge base and expanding your skills takes time, planning, and effort. With the right research, though, you will uncover resources that can help you take action towards achieving your goals and becoming an even better employee, manager, and contributor in the sports turf industry.

Scott Stevens, CSFM, is the sports turf manager at Elon University, Elon, NC. He is a member of the STMA Editorial Committee.
PRACTICES TO PROMOTE A POSITIVE IMAGE

BY BRIAN WINKA, CSFM

We as field managers are on the frontline of the recreation experience of each and every person who steps foot at our complexes. As a manager there are many hats that we wear throughout the day, turf expert, plant pathologist, irrigation specialist, computer wiz, project manager, and electrician and so on and so on. Because of the ever-changing nature of our jobs, there are several steps that you can take to be out in front of potential problems. Preventative maintenance practices will save you time, money and headaches in the future.

Maintenance policies and procedures must be geared to provide optimum recreation use; that is, areas and facilities that are functional, safe, and aesthetic. As a result, maintenance directly and continuously affects the parks and recreation experience of visitors to park and recreation areas and facilities. High-quality maintenance saves money for the department in many ways. If areas, facilities, and equipment are kept in operating condition, downtime and corresponding loss of services are minimized. Good maintenance practices permit the department to identify and correct problems when they are still relatively minor, instead of after they become major.

Regular preventive inspection programs permit the early detection and correction of potentially hazardous acts and conditions. If maintenance functions are not diligently planned, performed, and documented, the departments’ liability exposure and attendant costs can be greatly magnified. Proper maintenance of recreation areas and facilities is essential to prevent or reduce accidents to users.

Maintenance efforts directly reflect upon the public image of you as a manager and the facility you operate whether it is a school, municipality or a private complex. Providing clean, attractive, and stimulating recreation facilities and equipment significantly contributes to a high-quality recreation experience for visitors, participants, and spectators, leaving them satisfied.

In recent years, the public has developed a strong environmental ethic. Cities are increasingly expected to exhibit responsible stewardship for land and other environmental resources under their jurisdiction. From a maintenance standpoint, this expectation is reflected in the proliferation of public recycling programs, integrated pest management policies, land use restrictions, and similar environmental considerations. A good maintenance program can help prevent overuse and preserve the recreation resource, extending the useful life of property, tools, structures, equipment, or materials and ensuring the carrying capacity of all facilities.

Practices to help promote a positive image for your site can be broken down into six categories:

- Assess your site
- Map your site
- Train your staff
- Management responses
- Cultural and physical options for turfgrass management
- Record Keeping
- Evaluate

Assess and address site-specific conditions and needs for the intended function of a given turf grass area, e.g., high profile area vs. less visible area vs. practice fields vs. competition fields. The questions should be asked: Are the weed, disease, or insect problems affecting the function of the turf area? If so, why and what can be done to address the cause of the problem rather than treating the symptom? Initial soil samples should be taken for moderate and highest care zones before the growing season begins. Samples should be analyzed and interpreted by a laboratory to provide recommendations for fertilizer and soil amendments. Soil compaction and site moisture drainage should also be assessed.

Grounds for each property should have some form of a map. An initial site inspection should be conducted for each turf grass/landscape area prior to the growing season. Key turf grass/landscape species and key locations should be identified on maps. The use of each area and current traffic patterns should also be noted. Key pests should be identified for each area. A book of irrigation maps is also helpful to have on hand for irrigation audits and for repairs when needed. Post these maps so staff members can all be on the same page about each area of you facility.

Turf management staffs needs to develop a basic understanding of soil and turfgrass biology, proper cultural practices and signs and symptoms of threats to healthy turf including weeds, disease, and insects. Use local STMA events and chapters, local conferences, monthly training meetings, or ask your commercial vendors to help train staff members. Many of the commercial vendors were at one time managers. They understand the problems we face and they can help with solutions. They also can help put you in contact with other managers in your area that may have a similar complex and has dealt with the same issues you may be facing.

Management strategies will be recommended based on monitoring results and the nature of the problem. Methods include cultural and physical options for turfgrass management. Cultural methods include selections of the proper landscape plants & turfgrass cultivars; over seeding topdressing; modifying irrigation, mowing, and/or fertilizing practices. Physical and mechanical methods include removal of thatch if necessary; aeration; individ-

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ual removal of weeds and pests (as practical). Biological controls are the use of bacteria, fungi, insects, or viruses to control turfgrass pests. Use of endophyte-containing perennial ryegrass and tall fescue cultivars should be used when possible.

Pesticide should be used if insect; disease or weed problems meet or exceed your threshold values that were pre-determined in your site evaluation. Spot treatments to affected areas are preferred to broadcast applications whenever possible pre-emergent herbicides and insect controls can also be used to help control unwanted pests. When using pesticides, timing is key. Insecticides such as imidacloprid can be applied at the label rate to treat before an infestation happens. The typical preventive timing is from June to July. Most provide season-long, preventive white grub control, while knocking down and preventing other nuisance pests, like ants, chinch bugs, sod webworms and cutworms with the same application. Pre-emergent herbicides MUST be applied BEFORE crabgrass seed germinate. Crabgrass seeds germinate when spring soil temperatures tend upwards from 50 degrees F. Weed scientists’ use 52 degrees F. at one-half inch deep as the trigger point for their application of pre-emergence herbicide. It is important to keep a separate record of all chemical products (pesticides and fertilizers) used on properties. These records should be kept for at least three years and be made accessible to all interested persons, see state and local laws.

Cultural management is the key to maintaining healthy, pest-resistant turf grass. A comprehensive cultural management program should be developed and implemented to prevent and avoid insect, disease and weed problems. Weeds in turfgrass are encouraged by thin or weak turf. Mowing high and frequently, especially in the spring, over seeding and proper fertilization, irrigation, aeration and pH should be the first line of defense against weeds. Avoid planting turf in inappropriate locations. Select the proper variety of turf for the site including sunny vs. shaded locations. Tree and shrub roots compete with turfgrass for water in addition to blocking sunlight needed for photosynthesis and energy production. Heavily shaded areas are not generally conducive to healthy turf. Overseed with a high-quality seed to provide new plants into aging turf. Water in and keep moist but do not overwater which will encourage disease. Good soil-to-seed contact can be encouraged by lightly tamping or rolling after application. Short, cool days approaching the end of the growing season are better for turf seed germination and growth. If seeding is needed at other times, a fast-germinating and growing variety such as perennial ryegrass can be used. Annual rye can also be used as a quick fill in followed by reseeding in the fall using other varieties.

Maintain adequate nitrogen, phosphorus and potassium levels in the soil. Established turf generally does not need supplemental phosphorus. Fertilize in early spring and late summer/early fall. A mid-summer application should be considered if fertility is not adequate. Do not apply fertilizer when turf is not actively growing to reduce nutrient runoff. Multiple fertilizer applications at lower rates are preferable to single, high-rate applications which are also prone to runoff. Many of the fertilizer companies are working on better polymer coatings on fertilizers that gradually meter nutrients for several months or even all season long to meet the plant’s needs. By using the enhanced efficiency fertilizers, you can use up to 40% less nitrogen per year, which is good for the environment and your bottom line.

Aerification should be a part of every turfgrass maintenance program because it is absolutely necessary for maintaining healthy and durable turf. Failure to perform this simple maintenance can result in poorly drained soil, thin turf stands, and continued problems with disease. Aerification can benefit your turf by added oxygen and water that deep aerating provides. Aerate turf when it is actively growing and can fill in holes created during aeration. Excessive thatch is caused by the accumulation of dead turfgrass blades and roots. Aerification and topdressing the area can restore biological activity to decompose thatch. Additionally, proper watering, fertilization, pH maintenance, and aeration should correct thatch buildup.

If irrigated, water thoroughly and deeply with each irrigation to encourage deep rootking. Do not water late in day or at night to avoid leaving turf blades wet for a prolonged period, encouraging diseases. Run irrigation test frequently to ensure that your system is working properly, i.e. no leaks, heads are spinning as they should, valves open and close, etc. Sprinklers installed too low cannot rise above the turf or other plant materials. This results in an interruption of the sprinkler’s pattern of throw and can lead to gaps in coverage and flooding near the sprinkler. In addition, sprinklers that are installed too low are more prone to retraction problems and pre-mature failure as soil enters into the operating mechanism. In shrubbery areas, heads may be located at the base of the shrubs or groundcover they are watering. These heads must be close enough together to cover the area by throwing water under the plant material. As shrubs mature, adjustments may be necessary to be certain that coverage is still adequate. In many cases where heads were installed correctly, the turf builds up and grows with time, causing the heads to be too low relative to the surrounding grass. All systems should be periodically checked to make certain grass or plantings do not interrupt sprinkler patterns. Sprinklers installed too high are an invitation to damage by mowing equipment or vandalism. They can also be a trip hazard that results in unwanted liability. Sprinklers that are installed too high should be corrected before damage or injury occurs.

After any type of management strategy, turfgrass and landscape areas should be regularly inspected for results. After several seasons of a preventative maintenance management program, the long-term success of the program can be assessed. Compile a site-specific history of monitoring records, pest infestations, management strategies, evaluation records, and feedback from maintenance personnel. This data may be helpful in predicting future pest occurrence and fine-tuning action thresholds. Be sure to include what worked and what failed. Another good practice is to get input from any other maintenance staff at your facility. Take photos to document any projects and maintenance practices because as you know, a picture is worth a thousand words.

Brian Winka, CSFM, is supervisor, City of Chesterfield, MO and president of the STMA Gateway Chapter.
Stadium Field, Maryland SoccerPlex, Boyds, MD

Category of Submission: Professional Soccer
Sports Turf Manager: Ryan Bjorn
Title: Sports Field Director
Education: BS, AAS, Plant and Soil Science, Turfgrass Management
Experience: I started as an intern working on the grounds crew for the Boston Red Sox, and remained on staff for the 4 years while pursuing my Bachelor's Degree at the University of Massachusetts, Amherst. During this time, I also worked one summer season for the City of South Portland, ME at the Wainwright Sports Complex helping maintain two baseball fields, four baseball fields, and six soccer fields. After the baseball season completed in 2010, I went to work for the New England Patriots field crew, helping maintain one stadium Field Turf field and three natural grass practice fields, for the 2010-2011 season, ending in February 2011. I then applied for the manager-in-training position at the Maryland SoccerPlex (after finding the posting on stma.org!) and was hired in March of 2011. In the 3 years since then I have worked my way up from manager-in-training to assistant field manager, then to field manager and have been acting Sports Field Director since February 2014.

Original construction: 2000
Renovation: 10 seasons of mismanagement created a number of problems, including an accumulation of a 3" organic layer (drainage and compaction issues), a heavy infestation of Poa (disease problems, aesthetically unpleasant, poor stability), and to get back to the original grade/expose and utilize existing stability fibers. Removed the top 3" of the field surface to get rid of the accumulated organic matter and expose the original sand/stability fiber rootzone. Surface was recycle dressed to refresh the profile and expose some stability fibers, the rolled, 3/4" of 100% sand was added, field was seeded with Kentucky bluegrass and perennial ryegrass, then 1/4" 80/20 sand/organic mix was added on top. Field was rolled and watered, then opened for play again 35 days later. What was the soil composition of the field before renovation? 100% Sand/stability fiber mix with 3" organic layer. What was the soil composition of the field after renovation? 100% sand/stability fiber mix.

Turfgrass variety: 90% Kentucky bluegrass, 10% perennial ryegrass
Overseed: Overseed with Kentucky bluegrass twice a year in the Spring and Fall
WHY STMA SHOULD CONSIDER YOUR FIELD A WINNER?

2014 was an interesting and busy year for the SoccerPlex Stadium Field. We at the SoccerPlex pride ourselves in our ability to host many events, without sacrificing the quality of our playing surfaces. The number of events continues to increase every year, and 2014 was no exception.

The Spirit, Washington D.C.’s National Women’s Soccer League team was back for their second season calling SoccerPlex Stadium home. In a league with nine teams, six of which play on synthetic turf fields, the stadium field here at SoccerPlex was a highlight for all visiting teams and a source of pride for the hometown Spirit.

In addition to hosting a full NWSL season, the Stadium field is also host to a large number of other events. These events include things ranging from 3-year-old children in their “Pre-Kicks” classes, to all youth age groups playing in local leagues, state-cup matches, lacrosse tournaments and the largest new event addition of the year, the US Youth Soccer National Championships.

The National Championships are the most high-profile event in the US for youth soccer, and we were happy to host...
this tournament. It did provide certain challenges, the largest of which was the timing, being played throughout the entire third week of July, which in the Mid-Atlantic is not a historically great season for growing Kentucky bluegrass! Another challenge was the scheduling conflict that arose from an NWSL match being slated to take place on the Wednesday night of Nationals. Both parties were very accommodating, helping to switch field-level advertisements and other USYS-branded materials out for the NWSL match, and everything went forward seamlessly!

Having the sand-based stadium field has been a huge help to us during rain events. We are able to move games that would otherwise have been cancelled onto the stadium, and reduce the amount of lost revenue from rained-out events.

The large number of events, different type of events (youth clinics/ small-sided soccer/ full sided soccer/ professional soccer/ lacrosse, etc.), and the challenge of increasingly unpredictable weather patterns certainly make SoccerPlex a unique field with unique challenges.

We look forward to a great fall and winter here at SoccerPlex, and can't wait for another busy, innovation-filled season next year!

**SPORTSTURF:** What are your specific job responsibilities? What do find most enjoyable? What task is your least favorite and why?

**BJORN:** My specific job duties include things like big picture planning, budgeting, creating an agronomic program for the year and (when I’m lucky) getting out on some equipment.

I always have enjoyed field layout, ever since I was taught the process while working for Jon Bengtson with the New England Patriots/Revolution, I’ve really enjoyed learning all the different field layouts. We take great pride in our fields here and having square corners and straight lines are a big part of that.

My least favorite task is usually anything that has to do with communicating bad weather forecasts to our staff here at the SoccerPlex. Being the bearer of bad news is never fun, but being able to communicate clearly and with confidence is important, and people tend to respond more favorably when you come in with a positive attitude.

**ST:** What changes if any did you implement for the winning field in 2015?

**BJORN:** We have a fairly consistent plan year-to-year, but we make minor changes depending on certain factors (weather, usage of the field, etc.). We did make one somewhat major change the past season; we went from using a fairway mower to using a much smaller and lighter triplex mower with the goal of reducing additional compaction and wear and tear.

**ST:** How do you see your job changing in the future?

**BJORN:** Well the county in which the SoccerPlex is located in MD, Montgomery County, just passed legislation banning “cosmetic-use” pesticides on private lawns and other specific areas. While we are currently not directly affected by this, I see this becoming a trend in our industry. Not necessarily a pesticide ban, but becoming more and more environmentally conscientious as turf managers. I believe it could be a good thing as a whole for our industry because it will force people to make some changes to their plans and become more plant-health focused, which is significantly different from a lot of “old-school” turf management programs.

**ST:** What’s the best piece of turf management advice you have ever received?

**BJORN:** To narrow it down to one piece of advice would be very difficult, but I think two of the most important things I was ever taught were 1) to lead by example and 2) mistakes happen, what is important is to learn from those mistakes and never make the same one twice.

**ST:** How do you balance your work and personal time?

**BJORN:** Balancing work and personal time can certainly be difficult, especially during our busy season (March-November). I think it’s essential to take advantage of any time you have off and really disconnect when possible; having a hard-working, reliable crew is a huge advantage when it comes to this. Being able to count on them to keep things running smoothly while you are away can seriously reduce your stress!

**ST:** What’s your most valued piece of equipment and why?

**BJORN:** While they aren’t technically equipment, our staff is an absolute machine. Our Manager of Grounds Mitch Litz, Assistant Managers of Grounds Martin Volz and Jon Swartz take all my crazy ideas and translate them into achievable tasks for the rest of our crew to accomplish day-in and day-out. We are lucky to have our two foremen, William Godoy and Joel Cruz, who have been here over 10 years and know the entire complex like the back of their hand. The rest of our part-time crew work extremely hard and are so passionate about their work, we absolutely could not do what we do without every single one of them.

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UGA turfgrass certificate course goes online

The University of Georgia has introduced an online English version of its popular turfgrass management course. The certificate course, titled “Principles of Turfgrass Management,” covers warm- and cool-season turfgrass establishment, growth, maintenance, and troubleshooting. More than 2,050 landscape professionals have taken the course in its print format (English or Spanish). Those who complete UGA’s course become Landscape Industry Certified by the National Association of Landscape Professionals (NALP). The Golf Course Superintendents Association of America, SportsTurf Managers Association, and Asociación Española de Greenkeepers also endorse UGA’s certificate program.

TOOLS & EQUIPMENT

PRODUCTS

GYMTURF 365: THE FUTURE OF INDOOR TRAINING
Dollamur Sport Surfaces has unveiled its newest product, GymTurf 365, developed in partnership with Shaw Sports Turf. This portable, indoor synthetic sports turf provides a safe and playable surface to compete on year-round at the same intensity as an outdoor practice and can be installed in 30 minutes or less. Next time it rains or snows, GymTurf 365 enables your team to continue practicing, bypassing any weather roadblocks. It requires no infill. GymTurf 365 features Dollamur’s patented FLEXI-Connect technology, a hassle-free integrated feature that connects turf sections without additional fasteners or tape. The patented system, which uses built-in hook and loop connections to join turf rolls, expedites set-up and tear down. It ensures the turf will not separate between seams for a “no slip, just grip” surface.

Dollamur Sports Surfaces

UNDERHILL’S H2O MAXIMIZER WETTING AGENT
H2O Maximizer from Underhill International is a specially-formulated wetting agent for sports fields that penetrates dry soils and utilizes “ultra hydration” to retain more water in the root zones for healthier turf. Available in both liquid and pellet form, H2O Maximizer is a unique natural blend of soil surfactants and polymer resin. The surfactant ingredients stimulate initial soil wetting action while the polymer resin attaches to soil particles for better water retention. H2O remains active in the soil for four to six weeks, then bio-degrades into natural materials. Because of H2O’s exceptional water-holding capacity, irrigation efficiency and rainwater absorption are improved, and the need for hand watering is reduced. H2O is especially recommended for new sod and seedings, and is also beneficial for established turf. It can be tank mixed for spray applications or injected directly into the irrigation flow or spread as pellets.

Underhill International

FAME FUNGICIDES FROM FMC
Fame fungicides, a family of FRAC 11 group (Strobilurin) products that deliver fast-acting, patented fluoxastrobin protection against all major patch, spot, and mold diseases, are now available from FMC. Rainfast in 15 minutes, Fame fungicides provides greater flexibility to work around irrigation schedules and sudden rainstorms.

FMC Corporation

JACOBSEN LAUNCHES ALL-NEW PROFESSIONAL SERIES MOWERS AND UTILITY VEHICLES
Jacobsen has launched the all-new Professional Series commercial-grade mowers and utility vehicles. The flagship is the RZT line of ride-on zero turn mowers, which provide the power and performance to handle any turf job with ease. The RZT mows up to 5.3 acres per hour with either a 25 or 27 horsepower Kawasaki FX engine or a fuel-efficient 27 horsepower Kohler EFI engine. Jacobsen’s SZT stand-on mower packs power into a small footprint and features a 26 horsepower Vanguard engine and two different deck sizes. The new mower series is rounded out with the WZT walk-behind mower. The WZT features an 18 horsepower Briggs & Stratton engine and single or dual-drive drivetrain options. The new Jacobsen utility vehicles are led by the gas-powered Truckster MS/MX, featuring a large capacity of 1,200 pounds and a top speed of 17 MPH. An available linked suspension on the MX model allows it to handle rough terrain with ease.

Jacobsen
Turfco’s TurnAer XT5 steerable and reversible aerator now offers increased speed, a new weight system and a new gear ratio system, improving efficiency and hill performance. The weight system allows operators to adjust weight in the back of the aerator, improving control on hills, and the gear ratio system gives operators 14 percent more speed. The TurnAer XT5 also utilizes Turfco’s patented steerable aerator technology with a new variable-speed hydrostatic drive system, providing 50 percent more productivity than traditional aerators. Additionally, operators can steer and reverse with lines in the ground eliminating need to stop, lift and turn with each pass.

**Turfco Manufacturing**

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**Profile Field & Fairway**

Profile Field & Fairway turf conditioner is ideal for construction and maintenance of sports fields. Field & Fairway is easily applied as a topdressing before or after rain and heavy traffic events. The uniform particles provide a balance of air and water pore space to increase drainage and prevent muddy conditions. Field & Fairway’s nutrient-holding capability aids turf recovery.

Pamela Sherratt, Sports Turf Specialist at the Ohio State University’s Horticulture and Crop Science Department, conducted research on Field & Fairway, comparing its use for preventing turf damage and rescuing turf from rain game conditions. Her conclusion: “One rain game can destroy a natural grass field. I’m pleasantly surprised with Field & Fairway in both preventing turf damage and rescuing turf from rain game situations.”

**Profile Products**

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**TORO Expands T5 RapidSet Series Product Line**

The Toro Company is adding five new ¾” rotor models to its T5 RapidSet Series rotor product line. The tool-free arc adjustment of the patent-pending RapidSet feature allows the arc orientation and angle to be quickly set or changed through a straightforward combination of twists of the nozzle turret. The T5 RapidSet rotor’s unique slip clutch makes the no tools arc adjustment possible, while also protecting the turret gears and components from damage. The rotor can be adjusted to cover arcs of 40° to 360°.

Similar to the T5 RapidSet lawn model, which was introduced early last year, the Shrub and High Pop models also feature Toro’s exclusive Airfoil™ Technology nozzles. The nozzles’ geometries are specially designed for the T5 and create a low-pressure zone just beneath the nozzle openings, which delivers a better up-close watering profile and leading overall distribution uniformity.

**The Toro Company**

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**STEINER Introduces Professional Snow Blower**

STEINER has added an all-new dual-stage snow blower to the company’s winter attachment lineup. Together with the STEINER 440 tractor, the 48” SB648 Professional Snow Blower is designed to blast through winter’s toughest snow conditions. Constructed of cast iron and heavy-gauge steel, the snow blower is equipped with an 18” four-blade impeller, a sawtooth auger and 237° chute rotation, resulting in exceptional snow clearing performance. “The new 48" STEINER Professional Snow Blower is our best performing, most efficient and cost-effective snow blower on the market,” says Matt Donahue, STEINER brand director. “This new addition to our diverse attachment lineup goes to prove the convenience and versatility that Steiner tractors offer year round.”

**STEINER**

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**Deere Updates 3E Series of Compact Tractors**

The 3032E and 3038E are equipped with emissions-compliant Final Tier 4 engines with 31.1 (22.3 kW) and 37.3 (27.4 kW) hp, respectively. A hydrostatic transmission with Twin Touch pedals provides operators with simple, comfortable-to-use controls to find the right speed for the job at hand. It’s as easy as pressing a single foot pedal to go forward and another foot pedal to go in reverse. Automotive-style cruise control is optional. Intuitive controls are color-coded (orange for throttle and shifting; black for hydraulics; yellow for power take-off (PTO) for easy operation. Both models feature a flat, uncluttered, open station operator platform. A new, higher back seat provides added comfort for long days of work. A foldable, certified rollover protection structure (ROPS) is designed to provide easier storage. Without tools, the operator can manually fold the safety device down for easy parking.

**John Deere**

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**Gillette Stadium Acquires Turnkey Turf Protection Systems**

Gillette Stadium, home of the New England Patriots, recently acquired a turnkey outdoor drivable field cover from Matrax, Inc. to protect the synthetic turf during non-football events. The primary purpose of the Matrax field covering system is to protect the synthetic turf, support heavy vehicular traffic during the construction of stages and lighting systems and to provide a safe surface for the general public during events. Where other field covering systems are designed from a flooring perspective, Matrax was engineered with temporary road building and heavy vehicular traffic in mind. It was also designed to be easily installed, stored, and transported. Moreover, the Matrax system has translucent properties that permit light to penetrate to the surface below, thus allowing natural grass to stay alive for up to seven days while covered, thereby eliminating the need for sod replacement. While it transmits light, it does not transfer heat from the surface to the underside.

**Matrax, Inc.**

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**Products**

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November 2015 - Expires March 2016 - RS1511
TOO LATE?

We are about to overseed, is it too late to aerify? I want to control some summer weeds, is it too late to spray? Our temperatures have dropped below 55 at night, is it too late to overseed?

Two months ago I wrote an article about spraying post-emergence herbicide on crabgrass after a field manager had waited too late to get his preemergence out. I do not want my comments to be taken as a criticism, but it seems that question was the beginning of a number of “is it too late” questions I received in the past 6 weeks [editor’s note: mid-Aug through Sept].

I always heard that timeliness is a virtue. Ok, maybe that is taking it a bit too far, but initiating some turfgrass cultural practices late can strongly influence the outcome. Since we do not always know what Mother Nature has in store for us, we do not always know the best time to do everything. So, we tend to use weather cues and schedule based on previous experiences. But what happens when we are late?

For instance, let’s take the first question—aerification before overseeding. Generally, textbook instruction says to aerify bermudagrass fields 4-6 weeks before overseeding to alleviate soil compaction. Coring is performed that far in advance of the overseeding to allow coring holes to heal over, therefore preventing a speckled growth pattern of the ryegrass. The overseeded grass will grow more rapid and greener in and around core holes than between them.

Of course when circumstances prevent one from following the textbook’s prescribed timing, then what? Start by asking yourself if the chance of having speckled turf is worth the known benefit of reduced compaction? That thought process puts safety over aesthetics. Perhaps your soil is not overly compacted so that the ryegrass can be planted without aerification and then once it is well established, the field can be aerified. When the field will be used may influence the decision; in this case the speckled growth pattern will eventually even out. If a late aeration is the only time your field will be aerified for the year, then you may want to throw caution in the wind and go for it. So, there are many factors to consider.

Most of our cool-season grass species germinate best with soil temperatures between 50 and 65 degrees.

**Seed too late and cold weather may prevent sufficient establishment.**

The second question also has variables to consider. As was mentioned in my previous “Q&A” on crabgrass, the cool temperatures can dramatically reduce the growth of summer annual weeds. In many cases a turf manager is just as well off not spraying and letting Mother Nature naturally take out the weed. This is especially the case if the weed pressure is fairly light and fall is rapidly approaching. If the weed pressure is very high and/or there is ample warm weather forecast for bermudagrass to fill the voids from dead weeds, then spraying out the weeds may be the best decision. Just keep in mind that by the time the herbicide is effective at killing the weed, the growing conditions may not be favorable for bermudagrass growth. A field manager should also be aware of residual herbicide activity if they are going to follow spraying with overseeding. In some cases several weeks must pass before seed will germinate following the herbicide application.

The last question relates directly with overseeding. I get this question dozens of times each fall from homeowners and sports turf managers. In North Carolina we often get a few cool snaps then it warms back up. People think about seeding during these early cool snaps but by the time they get everything ready it is back in the 80s during the day so they decide to put it off. What they may not realize is that the soil temperatures are continuing to drop because the nighttime temperatures are not getting as high and the days are getting shorter. This can go on for weeks or even months. Then a hard cold front comes through and the days do not warm up so much. Then there is concern that they have waited too late.

In this case, textbook instruction suggests managers overseed when daytime temperatures in early fall are consistently in the 70s and nighttime lows are usually above 50. Most of our cool-season grass species germinate best with soil temperatures between 50 and 65 degrees. Seed too late and cold weather may prevent sufficient establishment. So, unlike the previous two questions, this one has an outcome that is largely weather dependent. One never knows if temperatures will warm back up or stay cool. Generally in fall, there will always be a few warm days that can get seed germinated, but what is not known is how long it will last. Ryegrass seedings are tough, but put a lot of traffic on them and they may not be tough enough to see maturity. So to answer this question about late seeding, I usually suggest the person to consider the alternative—a dormant field. If a dormant field is not acceptable, then one should get to seeding and hope Mother Nature is good to you.  

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

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