

UNIVERSITY OF

Pioneer[®]
ATHLETICS

ingredients matter.[®]




**Paint Designed for Every Surface and Every Situation.
The People, The Products, The Team. Ingredients Matter.**

Watch our short video to learn more about University of Pioneer and 'Ingredients Matter'.



800-877-1500
pioneerathletics.com/st7



**PROPER
HYDRATION**
is necessary for
**EVERY
ATHLETE**

(even the short green ones)

Aquatrols professional turf surfactants are designed to move moisture uniformly through the soil profile, promoting healthier, denser turf — the foundation of a stable playing surface and athlete safety.

Ensure that your turf is getting the moisture it needs to maintain peak performance. Contact your Aquatrols distributor today to discover the soil surfactant solution that's right for you.



www.aquatrols.com



SportsTurf Contents

JULY 2013 | VOLUME 29 | NUMBER 7

Field Science

- 8** No more muddy football fields
- 12** Improving native soil fields
- 18** Issues and technologies used on NFL playing surfaces

Facilities & Operations

- 22** Field painting tips & disaster stories
- 24** Gridiron maintenance challenges within the SEC
- 28** Maintenance & performance guidelines for synthetic turf fields
- 34** Mobile Weed Manual: new resource for turf

Tools & Equipment

- 35** Future turf managers event prepares students for successful future
- 36** Latest in field painting and marking equipment

Field of the Year

- 38** 2012 College Football: Jack Trice Stadium, Iowa State University

Departments

- 6** From the Sidelines
- 7** STMA President's Message
- 17** John Mascaro's Photo Quiz
- 40** STMA in Action
- 43** STMA Chapter Contacts
- 44** Marketplace
- 45** Advertisers' Index
- 46** Q&A



On the cover:

Jack Trice Stadium on the campus of Iowa State University in Ames was named STMA 2012 College Football Field of the Year. Turf manager Tim VanLoo, CSFM, relies on a completely turf student crew to help him maintain the Cyclones' athletic fields and surrounding grounds.



Increase grass stain-ability.

We have all sorts of sports field solutions at your local Ewing branch. Stop by, call or email us at sportsturf@ewing1.com and ask how we can help you get more from your infields, end zones and everything in between.

ASK ABOUT THE AMAZING BENEFITS OF

 **AquaSmart**
A SOIL ENHANCEMENT PRODUCT

 **EWING**
www.ewing1.com | 800.343.9464

FIELD CONDITIONERS & MOUND CLAY | MOISTURE MANAGEMENT | HOSES & REELS | FERTILIZER & FERTIGATION | FIELD PAINT | SOIL AMENDMENTS | TOOLS

From the Sidelines



Eric Schroder
Editorial Director

eschroder@specialtyim.com

717-805-4197

Turf war doesn't need a winner

ONE OF THE BIGGEST, if not THE biggest, common denominator among the sports turf managers I know is a pure and simple love of growing grass—the science and the art of preparing their fields for competition. When talking about their turf they often sound like proud, involved and concerned parents discussing their children. I had an NFL guy tell me once as he was leaving an STMA meeting, “I’ve got to get back to my baby.”

So naturally (pun intended) the recent increase in the number of synthetic fields being built across the country is troubling to many turf managers, some who see it as a real threat to their livelihoods. From my following of this industry, I see two main reasons why more communities, school districts, and higher education institutions are opting for synthetic. One is “keeping up with the Joneses,” meaning nearby towns or schools have synthetic fields and so their neighbors want one too; the other is, and this is a real shocker, money. As in, for example, if we build this field we can have users on it 24/7 and profit from the rental fees.

Many facilities have the space and budget for both natural fields and a synthetic surface (or more), which may be the ideal situation today. Often those lucky folks can have a showcase natural field for games and big events, while avoiding practice traffic and wear by using the synthetic field. But some who don't have that luxury, if they can afford to, are building synthetic fields, often with funds generated by booster groups or wealthy donors.

Of course those in the know don't claim synthetic fields are “maintenance-free” and that includes the industry's main trade organization, the Synthetic Turf Council (see page 28 in this issue for evidence). In fact, to get their money's worth from infill surfaces, owners had best employ a good turf manager or risk needing to replace their investment years before its expected life.

My Google news feed titled “synthetic turf” regularly includes items from across the USA where proponents of synthetics make “maintenance free” claims in public forums. A smaller number of items include claims from citizens that the infill material is toxic, or the fields spread bacteria to users, etc., and turf scientists from our best universities continue to conduct research on environmental concerns.

Those same researchers, as well as turfgrass breeders, also continue to work to improve the natural stuff and how it is maintained for sports use. Many of our readers work tirelessly to have their natural fields in top shape year round as well.

And while it's understandable that some of the marketing tactics by the synthetic industry make people's teeth hurt, we all should realize there are uses for both it and natural turf. Management teams that didn't make taking care of their natural fields a big enough priority will probably repeat the mistake with their new fields.

Here's hoping one day everybody truly appreciates the need for professionals to maintain athletic surfaces of all kinds, for every athlete. ■

Error of omission

In our March 2013 article “Turf farmers' advice on choosing and successfully managing thick-cut sod,” we used several photos, on pages 14 and 16, without crediting the source. Those photos were from 2012 STMA Innovative Award winner, Paul Carlson of Green Source Inc. and Central Sod Farms, and his SideKick machine. We regret the omission.

SportsTurf

1030 W. Higgins Road
Suite 230
Park Ridge, IL 60068
Phone 847-720-5600
Fax 847-720-5601

The Official Publication Of The Sports Turf
Managers Association

SportsTurf
MANAGERS ASSOCIATION

President: James Michael Goatley, Jr., Ph.D.
Immediate Past President: Troy Smith, CSFM
President-Elect: David Pinsonneault, CSFM, CPRP
Secretary/Treasurer: Allen Johnson, CSFM
Vice-President Commercial: Rene Asprion
Professional Facilities: Phil McQuade
Academic: Jeff Fowler
Parks & Recreation: Debbie Kneeshaw
Higher Education: Jeff Salmund, CSFM
K-12: Andrew Gossel
Commercial: James Graff
At Large: Mike Tarantino, CSFM
At Large: Tim VanLoo, CSFM

CHIEF EXECUTIVE OFFICER Kim Heck

STMA Office
805 New Hampshire Suite E
Lawrence, Ks 66044
Phone 800-323-3875 Fax 800-366-0391
Email STMAinfo@STMA.org
www.STMA.org

Editorial
EDITORIAL DIRECTOR Eric Schroder
TECHNICAL EDITOR Dr. James Brosnan
ART DIRECTOR Brian Snook
PRODUCTION MANAGER Karen Kalinyak

STMA Editorial Communications Committee
Jim Cornelius, CSFM, Jason Henderson, PhD, Paul Hollis, Clayton Hubbs, Joshua McPherson, CSFM, Brad Park, David Schlotthauer, & Grant Spear



SportsTurf (ISSN 1061-687X) (USPS 000-292) (Reg. U.S. Pat. & T.M. Off.) is published monthly by Specialty Information Media at 1030 W. Higgins Road, Suite 230, Park Ridge, IL 60068. **POSTMASTER: Send address changes to Sportsturf, PO Box 4290, Port Jervis, NY 12771.** For subscription information and requests, call Subscription Services at (845) 856-2229. Subscription rates: 1 year, \$40 US & Poss.; 2 years, \$65 US & Poss.; 1 year, \$65 Canada/Foreign Surface, 1 year, \$130 Airmail. All subscriptions are payable in advance in US funds. Send payments to Sportsturf, PO Box 4290, Port Jervis, NY 12771. Phone: (845) 856-2229. Fax: (845) 856-5822. Single copies or back issues, \$8 each US/Canada; \$12 Foreign. Periodicals postage paid at Park Ridge, IL and additional mailing offices. COPYRIGHT 2013, SportsTurf. Material may not be reproduced or photocopied in any form without the written permission of the publisher.

President's Message

Dr. Mike Goatley

Goatley@vt.edu



DIRECT MAIL LIST SALES

Cheryl Naughton 678-292-6054
cnaughton@specialtyim.com

SUBSCRIPTION SERVICES

Phone 845-856-2229 Fax 845-856-5822

REPRINTS

Cheryl Naughton 678-292-6054
cnaughton@specialtyim.com

Account Representatives:

Leslie Palmer
JAMES G. ELLIOTT CO., INC.
101 West Big Beaver Rd., Suite 1400
Troy, MI 48084
Ph: 248-530-0300,
ext. 1402
lpalmer@specialtyim.com

Scott Hill

134 N. LaSalle St., Suite 1700
Chicago, IL 60602
312-348-1206
shill@specialtyim.com

Classified Sales/Marketplace:

Glenn Datz

Phone: 213-596-7220
Fax: 213-624-0997
gdatz@specialtyim.com

PUBLISHER'S NOTICE: We Assume No Responsibility For The Validity Of Claims In Connection With Items Appearing In Sportsturf. Reader Service Numbers Are Given To Facilitate Further Inquiry. Mention Of A Commercial Product Does Not Imply Endorsement By Sportsturf Or Specialty Information Media, Or Preference Over Similar Products Not Mentioned.

Reminded of my ignorance

WHAT I LIKE BEST about being an educator is that the learning never stops, especially for the teacher. I recently completed an intensive training and testing program on nutrient management with a group of generally well educated, mid-to-late career professionals with varying turfgrass science backgrounds. One of the participants I visited with over dinner was 3 years from retirement and had recently been transferred into a new job. I learned that he had served in the military, then with the state police, and finally in a job at the state engineering office. Due to budget cuts, he was reassigned into a different branch of the agency for which he had no training at all. Out of our conversation, he proceeded to give me a very different take on the word "ignorant," a word I typically think of with a negative connotation.

"Doc, I used to think I should know everything, but I finally came to the realization that no matter how hard I tried, I remained ignorant about most things. And, no disrespect intended, but you are ignorant about most things, too. That's just the way it is. But I want you to know that while I am ignorant about all of this turfgrass stuff, I am not dumb...one just doesn't know what one doesn't know. And one more thing, whoever said ignorance is bliss definitely did not have his tail on the line trying to pass your test tomorrow."

I very much appreciated his candor, his attitude, and, yes, even for reminding me just how ignorant I am about many things!

A key to combating ignorance is education. You will find an educational theme throughout this month's *SportsTurf* with a special emphasis on the 2014 Conference Educational program. Education Committee Chairman Jeff Fowler and his committee have developed a really well-balanced educational program that offers something for everyone. The program contains a great mix of sports turf managers, academics, and commercial vendors, all ready to share their expertise and experience with their colleagues. Do you learn by listening or by doing? Do you learn in a classroom setting or through face-to-face contact? All of these interactions are part of what makes our annual conference and trade show the success that it is. Please plan on joining your peers next January in San Antonio to interact, attend the myriad of educational sessions, and visit with our trade show vendors.

By the way, when my new friend turned in his test he told me "I don't know if I passed, but I can assure you I am not as ignorant about turfgrass as I was yesterday." I shook his hand, thanked him for coming, and said "I've never appreciated so much being reminded just how ignorant I am. You got me to looking for this quote from Confucius that applies to both of us: 'Real knowledge is to know the extent of one's ignorance.'" I am proud to report that my friend passed with flying colors. ■



▲ **HERE'S THE SAME FIELD 4 YEARS LATER** at the end of a season after hosting 70 events, and after reconstruction and yearly renovation.

No more muddy football fields

JUST AS TECHNOLOGY to produce better synthetic turf football fields improved over the past decade, so has the technology for real turf football fields. The ideas presented here for football fields can be used for other fields that have trouble keeping a thick stand of grass like

soccer, lacrosse, field hockey, and rugby fields. This article includes the most recent recommendations for grass football fields (grown on native soil) to keep fields thriving. We will explore the latest technology in football field construction, reconstruction, and renovation that makes this possible. The recommenda-

Sound maintenance practices are a must including: soil testing, fertilization, mowing, irrigation, aeration, seeding (if necessary), and pest control (weeds, insects, and disease).

tions for keeping fields thriving in wet climates also work for fields in dry climates. Soil structure and pore space are the key elements.

Here are some particulars to consider for real turf football fields that host up to 70 events per year. In the north, Kentucky bluegrass fields should have a yearly rest period of one full growing season in the spring. For football fields in the south, bermudagrass fields can be overseeded in the fall for winter and spring sports with a rest period in the summer. Sound maintenance practices are a must including: soil testing, fertilization, mowing, irrigation, aeration, seeding (if necessary), and pest control (weeds, insects, and disease). Commit to a yearly renovation program and replace the sod every 10 years. Most facilities that have real turf football fields should be able to afford these easy to follow, full-proof methods. (See ESTIMATED BUDGET at the end of this article.)

CONSTRUCTION AND RECONSTRUCTION

For an existing field, remove the grass, treat the soil, grade, and sod. If the budget allows, install irrigation and subsurface drainage before sodding. For a new field, start with treating the soil.

Existing Grass Removal. The easiest and least expensive way to re-

SWEEP, GROOM, STERILIZE

The GreensGroomer line of synthetic turf care products has never been more relevant for today's infill turf systems. A regular maintenance routine will improve consistency, playability and safety while helping to extend the life of the surface. With the addition of the GreenZapr®, field sanitation can now be an easy and convenient process with an unbeatable cost per application.

The hallmark of these patented designs is simplicity and durability. Each is loaded with the right features turf professionals require for improved turf performance and labor efficiencies while delivering ease of use and a lower total cost of ownership.

LitterKat® Sweeper with Tow-Behind Magnet

*Fast, Easy Removal of Surface Debris
Magnet Removes Unwanted Ferrous Objects*



Synthetic Sports Turf Groomer w/ Spring Tine Rake

*Stands Turf Fibers Up & Relieves Compaction
Insures a Level Playing Surface*

GreenZapr® with UVC Eradication

*Powerful UVC Microbe Eradication
Simple, Cost-Effective, No Chemicals*



For detailed product information, product inquiries and dealer demos visit us on the web
or contact us toll free - 888-298-8852



Photo 1



Photo 2



Photo 4



Photo 5



Photo 6



Photo 7



Photo 9



Photo 10

move the grass is to plow the existing grass under just as a farmer would plow the field to plant a new crop. Allow 3-4 weeks for the sod to decompose. (See photo 1)

Soil Treatment. An additional benefit to plowing is the compacted top layer of soil ends up on the bottom and the loose soil from the bottom ends up on top. This creates better soil structure with more pore space for improved drainage and rooting. Continue to treat the soil by disking, lightly tilling, and pulverizing (see photos 2 and 4).

Positive Surface Drainage. Perform a

topographic survey to determine the existing grade including consistency and percentage of slope. Then develop a proposed grade plan to correct any inconsistencies remembering that grass football fields need at least 1% slope to remain playable in wet conditions.

Grade the field according to the proposed grade plan using equipment with turf tires or tracks to minimize compaction (see photo 5).

Optional Pop-up Irrigation System. All of the irrigation water lines must be in-

stalled in trenches that are a minimum of 18" deep if a subsurface drainage system is going to be installed. This depth allows the drainage system to be installed 12" deep over the top of the irrigation lines (see photo 6).

Optional Subsurface Drainage System.

The pipe for the drainage system must be installed in trenches that are a maximum of 4" wide by 12" deep. Use 1" by 6" cloth rapped vertical drains or 2" perforated corrugated pipe. Backfill the trenches to the surface with coarse to very coarse sand with