THE OFFICIAL PUBLICATION OF THE **SPORTS TURF MANAGERS ASSOCIATION**

SportsTurf

AUGUST 2018

SPORTS FIELD AND FACILITIES MANAGEMENT / www.sportsturfonline.com

A Place to Play

Oak Park builds an FOY hotspot

See pg 42

FIELD OF THE Year

ALSO INSIDE

- Fun photos from the Turf Twitterverse
- STMA 2019 Conference: First look
- Help with basics of job search
- Water & hybrid bermudagrass
- Synthetic back to natural grass

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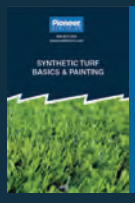

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pioneerathletics.com/st88

STARTING LINEUP

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SportsTurf

FEATURES

DEPARTMENTS

ON THE COVER

pg 42

On the cover: Field of the Year Award winner Travis Stephen says, "Longfellow Park, as well as the rest of the parks in the Village of Oak Park, is pesticide/herbicide free. When I first started working at the park district 4 years ago, many of the fields were 75% infested with weeds. Chemically controlling weeds was not an option."

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FROM THE SIDELINES

I loved the World Cup

Eric Schroder / Editorial Director / Eschroder@epgmediallc.com / 763-383-4458

SOCCER WASN'T OFFERED AS A SPORT in small-town Pennsylvania when I was growing up and nobody played it on their own. I didn't have much exposure until, like many of you I'd bet, my kids started playing at age 5. Watching those scrums could be painful but as my daughter stuck with it over the years the matches, with teamwork and genuine drama often on display, became much more entertaining.

I have watched World Cup matches since 2002 but this year I made a point of recording some specific games and I ended up watching a lot of soccer! The old "it's too slow, nothing happens, there isn't enough scoring" argument shouldn't hold water any longer, especially and unfortunately for baseball fans. But that's another column.

So I tuned into Portugal v Spain as my first live game of the tournament; within the first 20 minutes, chunks of dislodged turf were easily visible and the announcers, including the incomparable Andres Cantor (GOOOOOOOOOOAL!), talked footing throughout the match. I couldn't confirm it but I do not think that Sochi venue, built for the 2014 Olympics, didn't have the reinforced natural surfaces featured in more than half the World Cup stadiums. FIFA continues to insist that all games be played on real grass fields, they don't have to be 100% turfgrass. Another game from Sochi, Russia v Croatia, also was marred by less-than-ideal turf as even the referee was slipping. But overall, the grass performed well for the tournament's 12 pitches.

Rostov Arena in Rostov-on-Don, for example, featured the hybrid SISGrass from SIS Pitches in Ireland that combines 95% natural grass with 5% synthetic turf, on top of an aeration system, which manages soil moisture and removes excess water via a network of pipes that forces air movement. This is hot or cold air depending on the climate requirements. According to an online report, the laser-guided installation took 8 days and 48,000 km (almost 30,000 miles) of yarn was used to stitch the synthetic fibers together, an amount that is enough to stretch around the world. The fibers are injected into the rootzone via a slow-moving, rectangular vehicle, which is slightly smaller than a school bus.

GrassMaster Solutions by Tarkett Sports prepared hybrid grass fields in three venues, Volgograd Arena, Kazan Arena, and Nizhny Novgorod Stadium. Again, these fields feature polypropylene fibers injected into the turfgrass rootzone, as many as 20 million fibers per pitch.

Qatar, with just 2.5 million people, has already begun building stadiums for the 2022 World Cup, according to Turfmatters.co.uk. Their construction will largely determine the design and composition of the turfgrass pitches for the tournament. The tiny desert nation (most of the country is dominated by sand dunes and salt flats) will be the first Middle Eastern nation to host the tournament. Because summer temperatures there average 105°F during June, July and August, the 2022 tournament will begin November 21 and conclude December 18. ***/ST/***

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PRESIDENT'S MESSAGE

Make your plans early for Conference

Sarah K. Martin / CSFM / sarah.martin@phoenix.gov / @neongrapefruit

IT MAY ONLY BE AUGUST, but the STMA Annual Conference and Exhibition in Phoenix is right around the corner! Planning has been going on in earnest; presentations have been chosen, golf and bowling are being set up and a full schedule will be out soon! I know with my employer I must turn in my attendee and travel requests months in advance to ensure all the paperwork gets processed, so while it may seem like the show is a long time off, it will be here before we know it!

NOW IS ALSO THE TIME to be getting applications ready to be submitted for the Leo Goertz Membership Grant and the Darian Daily Legacy Scholarship. The Leo Goertz Membership Grant has the purpose of funding new 2-year memberships in STMA.

The Darian Daily Legacy Scholarship is awarded to an applicant who is the child of a member and is pursuing other careers outside of the turf grass management industry.

More information about this Grant and Scholarship can be found on the STMA web page, www.stma.org, in the Programs Tab, under the Grant and Scholarship sections, respectively.

THINKING ABOUT GRANTS and scholarships takes me back to my own college days… It still feels like yesterday that I was doing summer internship programs and trying to figure out what classes to take in the fall. I also wonder how I ever managed to get through college at all without cell phones and Wi-Fi Internet connections (good ol' dial up, slow slow slow), but that is a different column altogether!

Those internships were critical to my education, and preparation to go out and get a position "on my own." What I learned from the great managers I got to work with included more than the basics of baseball field management. I learned what kind of manager I wanted to be, how to handle staffing, how to deal with adverse situations (both weather and non-sporting events, and even the stress of a heavy sporting schedule).

If you are a student pursuing an internship, STMA has resources to help you. Check out the Job Board for open internships, which is accessible from STMA.org. There is also the Student Guide to Turfgrass Internships that can be found in the Career Center. No matter where you intern, use it as a time to immerse yourself in your chosen profession. Ask questions, volunteer for assignments, become indispensable, and it will help to solidly launch your career as a professional sports field manager.

If you are fortunate enough to have an intern, take the time to really work with them, let them see inside your management strategies, as they truly will take that information and run with it for the rest of their careers. As William Arthur Ward once said "The mediocre teacher tells. The good teacher explains. The superior teacher demonstrates. The great teacher inspires." ***/ST/***

Sarah K. Martin, CSFM

@ATURFMAN

From Portland June 18:

Game Day! @TimbersFC2 and @SwitchbacksFC. First event following fraze mow on April 23

@BRANNONBURKS

From San Antonio:

Softball has transitioned really, really well this year. Best ever, as a matter of fact. @SFSturf_pros

@CGCCHAD

From Virginia:

Just finished renovating UVA Lambeth Field, hidden for the most part on campus, one of the coolest backdrops of any field @ CarolinaGreenCo

@CYCLONETURF

From Ames, IA:

Mother Nature's trump card . . . rain! Whether you are getting it or not, she seems to win more than she loses!

@T_LENZTURF

From Ft. Worth June 24:

Last day of this tournament. A little early infield moisture, a mow and one heck of a sunrise.

@KELREN31

From Midland, MI June 28:

First home game of the second half tonight. 10 games in the next 12 days @greatlakesloons #DiveIn.

@MSUDAWG2004

From Starkville, MS:

It's a bit toasty today! I'm dropping weight like a bad habit! #yallstayhydrated #hellosummer

@CURTIS_KELLOGG

From St. Louis:

Cardinals' groundskeeper hit in head by errant ceremonial first pitch

@BPOLIMER

From Massachusetts July 3:

Air temp 94, synthetic field temp 158 #sportsturf

@GRASSHAKER

From The Netherlands:

Artificial out, hybrid in, back to the roots. Installation #UnderSoilHeating @FortunaSittard Stadium @GrassMaster1989 @enk_groenengolf #PassionForGrass

SMOKIESGC @SMOKIESGROUNDS

Knoxville, TN July 10

Love how Pitchers somehow think the foul line is the pitching rubber

@ANDREWMUNTZ

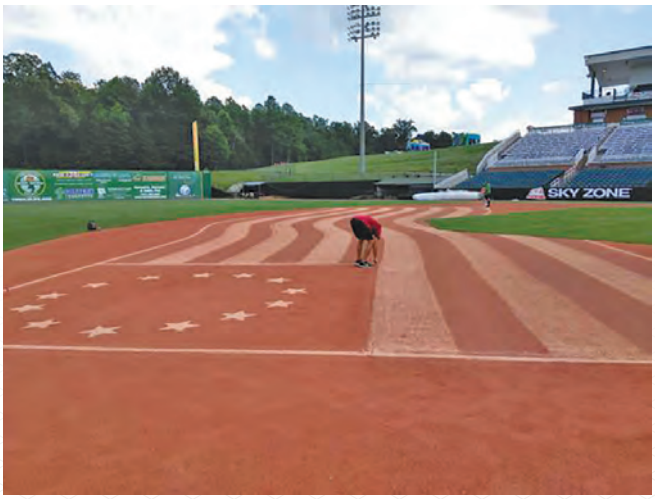
Powell, OH July 10

Perennial ryegrass is known to catch a lot of diseases but great picture from @rtdemayturf showing the difference between p rye and k blue. Bluegrass in the center. Dollar spot on the rye

STMA @FIELDEXPERTS

Columbus, OH July 9

This is our overall field pattern and layout for the ASG. Can't thank my crew and all our volunteers enough for the hard work they've put forth over the past few days.



@NATURALGRASSMAN

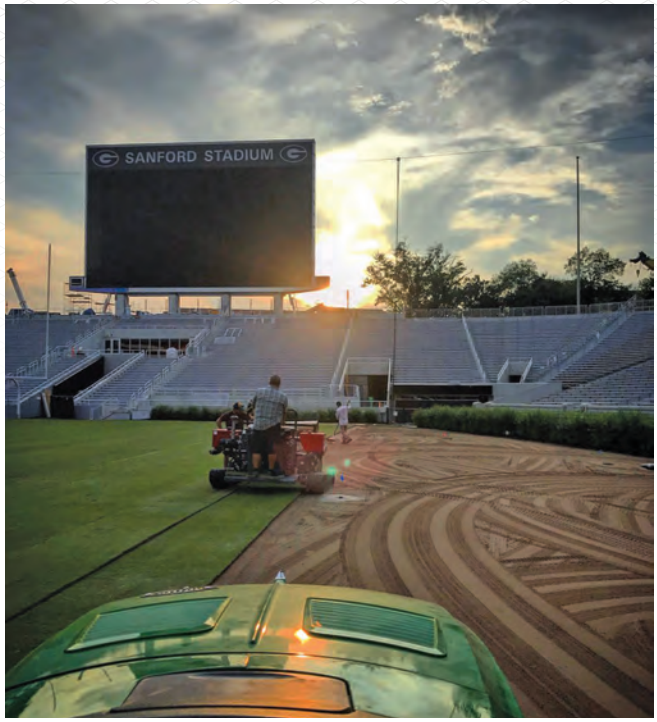
Jackson, TN July 12

Generals' field turns patriotic for Independence Day game https://www.jacksonsun.com/story/news/local/2018/07/05/generals-field-looked-patriotic-independence-day-game/761916002/ … via @JSunNews

@TJWOHLEVER

South Bend, IN July 17

Only perk of having a walk behind aerator is getting the step goal knocked out easily @FieldExperts @SBCubs



@WHOOSKI

Athens, GA July 17

Going the distance – at Sanford Stadium

@DIXIEGROUNDS

Market Bosworth, England, July 18

This time last year and now. How I miss the tank room and that button to press. Will it ever rain.

NTEP has trials in approximately 35 US states and Canadian provinces.

Catching up with the National Turfgrass Evaluation Program

Editor's note: We emailed some questions to Kevin Morris, executive director of the National Turfgrass Evaluation Program (NTEP), Beltsville, MD to update us on how NTEP is improving its trial evaluations and handling the resulting data:

***Q:* What qualifies a research program to be involved with NTEP?**

MORRIS: NTEP has trials in approximately 35 US states and Canadian provinces; some states have more than one test site (e.g., California, Georgia and others). Every site that runs our "standard" trial evaluations is university-based (i.e., public institutions, most of which are land-grant university affiliated).

"Ancillary" trial sites evaluate a specific trait (such as a particular disease or stress, like traffic tolerance) and can be located off of a university research facility (most are on golf courses). We also conduct some trials strictly "on-site," i.e., on an actual use site, such as a golf course.

An example of an on-site trial is our current fairway overseeding trial that is planted and evaluated on nine golf courses across the southern US. All NTEP test sites, whether standard, ancillary or on-site are coordinated by a university turfgrass researcher. Researchers are trained in turfgrass evaluation either by NTEP, or having an NTEP-trained researcher that instructs a graduate student or technical staff.

Q: What changes are in the works for NTEP's trial evaluations? How much change in testing sites has there been over the years?

MORRIS: From the start of NTEP in 1980, there have been several significant changes in the way NTEP conducts its evaluations. Before 1992, sites conducted NTEP trials without any contract or agreement, and without compensation. In 1992, NTEP made the change to compensate its trial sites, but also instituted a grant-in-aid agreement dictating trial protocols and requiring each site to collect specific data. Since then, we instituted our training program to further standardize data collection. We now have a stable of excellent cooperators that invest significant time, funds and effort into make NTEP trials the best they can be.

Q: How has technology impacted how you collect data? And do you compile all the results as well as disseminate?

MORRIS: Many turfgrass evaluations, in particular turfgrass quality, are subjective ratings that are in effect, an opinion. Turfgrass quality ratings are a combination of color, texture, density, uniformity, disease damage, weeds and other factors that affect turf appearance and performance, all rolled into a 1-9 rating, 9=ideal turf. Turf quality ratings are collected monthly throughout the growing season and with 15-25 researchers collecting data for each trial, it is that summary of "opinions" that make turfgrass quality ratings useful.

However, much other data that either describes each entry, (such as color, texture and density) or documents performance due to a stress (such as drought, disease or traffic) is collected by NTEP. Some of this data can now be collected using digital image technology. Digital images are collected

using a digital camera mounted on a 1-meter square metal box that is enclosed on all but one side. A light source is contained inside the box so that consistent light is available for each picture. The digital images are then analyzed by proprietary software for the percent green cover, and the range of green color is identified. This technology is very useful for ratings such as the actual green color (i.e., what shade of green is the entry?), or percent cover of the entry in a test plot.

Many NTEP researchers use this technology for specific data collection applications as the results are very consistent. However, since a turf quality rating is subjective and an opinion, and a digital image measures percent green cover and shades of green, ratings of 1-9 are still used for turf quality and some other ratings.

In addition, if mixtures of grasses are present (as in some NTEP trials) or a disease or another stress is present (or multiple diseases or stresses), this complicates the digital image analysis. In the future, NTEP will investigate the use of more digital image technology, or other technology (such as flying a drone over an entire trial and collecting all images at one time). For now, though, most NTEP data will continue to consist of 1-9 scale ratings.

Yes, we compile all data and statistical analysis is performed on each data set, and any inconsistent data is removed. Then we publish data from each trial, each year on www.ntep.org. We are currently testing over 600 cultivars and experimental grasses of about 20 species, so this is a monumental task. In addition, at the end of each trial, we produce a 5-year summary report. In 2018, we have 12 annual reports and four final summary reports, which takes us much of the year to complete.

Q: Who are the most common users of NTEP data? How can it be accessed?

MORRIS: Users of NTEP data range from turfgrass breeders working to develop new varieties, to seed companies marketing new grasses, to professionals (golf course superintendents, athletic field managers, lawn care operators) trying to select the best grass for their situation, to specification developers (i.e., federal, state and local turf managers/golf course architects/athletic field builders, etc.) that must "spec" grass seed cultivars

Kevin Morris, executive director of the National Turfgrass Evaluation Program.

for bids, to brokers that purchase and sell grass seed worldwide based on NTEP data, to the homeowner. Therefore, our users are highly varied in location, application and expertise, and our data must serve that very broad clientele.

Data from back to the early 1980's can be found on our website for free! This service exists for the turfgrass industry due primarily to entry fees paid by sponsoring companies, as well as the USDA-Agricultural Research Service in Beltsville, MD (USDA provides office space and other facilities for NTEP). Since our start in 1980, we have collected upwards of 1,000,000 data records on turfgrass. A data record is all the data collected for one year on a single 25 square foot plot at one location. We currently have more 35,000 plots across North America).

However, since our data is so broad and varied, we know that accessing it is not very 'user-friendly.' Due to a USDA grant that NTEP is cooperating with, changes will be taking place in the future as a database of turfgrass evaluation data is being developed, as well as a system of menus and other methods to make NTEP data easier to access. This will make NTEP much more useful to the end user, including the athletic field manager. **/ST/**

Equipment financing options

// By RHONDA FLANERY

When acquiring a new piece of equipment, there are many options and factors to consider when it comes to financing. It is important for sports turf professionals to understand there is not a one-size-fits-all solution. Whether sports turf managers prefer to pay for a machine upfront, or spread payments out over time, each option has pros and cons. To help navigate through all of the options, you should do your research, create a plan and use your resources to find the right financing solution for your operation.

Explore your options

AS A FIRST STEP when adding a new piece of equipment to your fleet, you should educate yourself about the different financing options. Each financing option has its own benefits, and it is important to select the best solution for your operation.

For a groundskeeper that would like to own a machine, a traditional loan can be a great option. Similar to a loan for a car, with a loan the purchaser makes multiple payments on a piece of equipment over a 12- to 60-month period. A loan typically requires a high down payment and more expensive monthly payments compared to other financing options. Additionally, because the equipment is owned by the operation, the machine takes up capital, which might not be ideal. Another downside of a loan is that maintenance prices may increase over time, which can be unappealing for equipment you depend on. To determine if a loan is right for your operation, consider how long you will want to keep the piece of equipment and if capital is important.

Another option is an equipment lease, which offers more variety and flexibility. There are a few leasing options: operating lease, lease purchase (dollar buyout lease) and municipal lease. Each of these options offers different advantages for sports turf professionals based on their needs.

An operating lease is ideal for customers that do not want to own the machine at the end of the lease term. One of the greatest advantages of an operating lease is the lower monthly payments and upfront costs. Additionally, because the lease term is shorter, the equipment is usually under

warranty, which keeps maintenance costs at a minimum. However, this type of lease usually restricts the number of hours that the equipment can be used and equipment must be kept in good condition to meet the terms at the end of the lease. An operating lease is ideal for a machine that will not be used daily. Additionally, the short term allows the customer to trade up for newer, more advanced equipment every 2 to 3 years.

Similar to a loan, a lease purchase is ideal for sports turf professionals that would like to own the piece of equipment at the end of the lease term. With a lease purchase, the machine is not on the balance sheet, as the customer doesn't own it, so it frees up capital for other things.

A dollar buyout lease is an agreement where you purchase the piece of equipment for one dollar at the end of the lease. While it may seem like a steal, the fixed monthly payment is often higher than an operating lease. Typically, dollar buyout leases are used for a piece of equipment that will be kept for a long period of time.

The municipal lease is for a select group of customers – state, county, city, and municipal governments and their agencies including school districts, community colleges, and state universities. Not all qualify for a tax-exempt municipal lease, so it is best to check with your accountant to see if you qualify. A municipal lease is similar in nature to lease purchase in that in results in ownership of the equipment.

Other options include an outright purchase or rental. While not as cash flow efficient, there are some instances where one of these options may be used. For example, you may choose to outright purchase handheld equipment, since it will likely be used more often, is less expensive and won't take up a lot of capital. On the other of end of the spectrum, you would choose to rent if you needed equipment for a one-time project. Most frequently rentals are used for small construction equipment such as skid steers or compact excavators.

Make a plan

ONCE YOU HAVE CONDUCTED initial research on the options available, it is time to go and get your new machine.

Rhonda Flanery, John Deere Financial.

We recommend working with your dealer, who will help you determine the best solution for your operation. When you go to the dealer, you should be prepared with an equipment replacement plan, which your dealer can help you create. The equipment replacement plan will not only implement a set schedule that you can easily follow, but can also save money in the long run.

An equipment replacement plan begins with identifying the equipment you need in your fleet and setting goals for each. Working with a dealer, you will set ideal timeframes for each piece of equipment, along with estimated use. This plan will help you map out how you use your equipment and how often you want to replace it, which will then determine what financing option is best for that machine.

Once you know how you will use your equipment, your dealer can act as a consultant and help you determine what type of machine is best for your operation. Once you are ready to pull the trigger on a new machine, your financing company of choice will request a credit application and financial information, check your operation credit and ensure you qualify for financing.

When speaking with your dealer, also consider other things that can be wrapped into a financing package, such as maintenance. Some financing companies can include preventative maintenance in the monthly leasing bill, which will help to minimize machine downtime. Additionally, if you are buying a piece of equipment such as a compact utility tractor, you can often add implements into your financing package.

Use your resources

ONCE YOU DETERMINE the right machine and how you would like to purchase it, it is time to select your lender. Whether it is a third-party institution or tied to your manufacturer, do your research to ensure that company is the right partner for your operation. We recommend reaching out to your peers, asking questions and learning about their lender experiences. Word of mouth in the sports turf industry carries a lot of weight, and you can avoid issues down the road by doing your research before signing anything.

After selecting a lender, discuss your operation needs to help determine the best plan for you. Often financial institutions can create a customized package based on your operation. For example, some lenders offer payment plans that align with your operation's busy season. If your income is the strongest during May through September, your lender might be able to adjust the schedule so that payments are due during that timeframe.

When financing a new piece of equipment, it can feel overwhelming when sifting through the many options and finding the right financing solution for your operation. From loans to leasing, it is important to lean on your dealer and understand that you are not alone in this process. Consider how you can make a financing deal work for your operation, from wrapping in maintenance and adding attachments and implements to creating a payment program that aligns with your schedule. By doing your research and asking the right questions, sports turf professionals will have a new machine in their fleet in no time. **/ST/**

Rhonda Flanery is sales account manager for John Deere Financial.

MIKE ALBINO, BALLARD SPORTS

This month in "The *SportsTurf* Interview," we meet Mike Albino, sports turf manager for Ballard Sports in Syracuse, NY. Ballard Sports specializes in site master planning, construction, installation and maintenance of all types of athletic facilities and equine arenas; Albino is on a sports turf management staff that has gained their experience as managing surfaces for various college and professional teams.

Ballard Sports' parent company, Ballard Construction, is a family business established in the 1800s that has passed down through six generations. The company began as the Syracuse Pressed Brick Company, and over the years has been involved in many construction projects on the Syracuse University campus.

SportsTurf: How did you first become involved in sports turf management?

ALBINO: My introduction to sports turf management was at Syracuse University in 1975. I was there for about 2 weeks when the field manager decided to retire, yikes! My new boss approached me and asked, "What do you know about grass?" I responded that it was "green and it had to be mowed." My boss informed me that I was going to be the new turf manager and I would have to start an intensive course of study along with working. I went to the Cornell Short Course and several other schools. That was just part of it, my most important education came from my mentor, Emil Gasparini, who insisted that learning the basics through hands-on experience, along with learning the old ways of doing things, would serve me well for my entire career. He was right! I spent 25 years at Syracuse and am grateful for all the education and networking that was afforded me.

ST: What are your main responsibilities? And what does a regular working week entail?

ALBINO: In 1999 I made a decision to go to work for Ballard Sports and learned an entirely new way of working on sports fields. My responsibilities increased because I was responsible for all the turf that Ballard was working with, from the highest-end field down to the roadside repair that has to be done for the construction crew. As well as installations, we have also done long-term maintenance contracts on fields we have built.

***ST: What are the differences in working as a contractor vs. being employed by the fields' owners*?**

ALBINO: When I was at Syracuse every field on campus was mine! It is that aspect that I carried over to Ballard and has allowed me to produce exceptional results on all the jobs I work on. Safety is one of the most important aspects of my field maintenance and construction philosophy. I am there to make sure the players have the safest fields available; nobody wants to see someone suffer an injury that could be life changing. I strive to educate and instruct the turf managers that I will be turning over the field to; if they don't know already, he or she needs to know the proper techniques and procedures that will insure their success. I pretty much feel like I am still doing the same job I did at Syracuse, except my campus is much larger and it takes more time to get to different areas (read: extensive travel).

ST: What turf maintenance job do you enjoy the most and why?

ALBINO: One of my favorite and most rewarding jobs is waking a field up in the spring. The simple tasks of aerating, power seeding, topdressing, dragging, fertilizing and watering it all in set you up for wicked good results. The fields respond with a beautiful flush of green growth that makes you proud. After a long winter there is nothing like it.

ST: Every soccer pitch in the USA has wear in the goalmouths. Any advice for those with limited time or resources on keeping turf growing there?

ALBINO: In the early days at Syracuse we didn't have a lot of great equipment for soccer. We had some problems in the goalmouths but they were managed by controlling drainage and constant overseeding. I used to take a power drill with a 1-foot masonry bit and drill as many holes as I could, fill them with sand and then overseed. It was labor intensive but it worked! Part of the "and then some way of doing things."

ST: How did you first become involved with STMA? How has your career benefitted from being a member of STMA?

ALBINO: I joined STMA in 1999 when I first started working for Ballard. I joined so I could learn more from other sports turf professionals. Little did I know how important a roll STMA would play in my career and life. I don't know how to express the gratitude I feel for all the friends I have made and the education that I received at all the conferences and online. One of the greatest parts of my STMA experience has been being presented with the "George Toma Golden Rake Award" a few years ago. I am proud to say George is a mentor and friend of mine. To me STMA is like a big family and I feel lucky just to be part of it.

Continued on page 41

JOHN MASCARO'S PHOTO QUIZ

JOHN MASCARO IS PRESIDENT OF TURF-TEC INTERNATIONAL

////////

ANSWER ON PAGE 33

CAN YOU IDENTIFY THIS SPORTS TURF PROBLEM?

PROBLEM:
Brown areas of turf

TURFGRASS AREA:
Soccer fields

LOCATION:
Callaway, Florida

GRASS VARIETY:
419 bermudagrass

Robert M. Lindsay Field at Lindsey Nelson Stadium is home to Tennessee baseball.

How soil water content impacts hybrid bermudagrass athletic fields

// By KYLEY DICKSON, PHD, AND JOHN C. SOROCHAN, PHD

Many athletic fields in the US are built with native soils in contrast to constructed sand rootzones such as those developed according to the United States Golf Association. Native soils high in silt and clay tend to have greater soil water contents and slower water infiltration rates compared to constructed sand root zones. The decreased water infiltration rates of cohesive soils (i.e., non-sand soils) are potentially problematic when precipitation occurs prior to athletic events. It has been reported that cohesive soil athletic fields with high soil water content tend to lose green turfgrass cover faster than those with lower soil water content.

Constructed sand rootzones are used on many US collegiate and professional football fields. Sand rootzones are preferred because of consistent air-filled porosity, rapid drainage, and compaction resistance, which help avoid rain delays or cancellations. While multiple types of constructed sand root zones exist, the USGA specification is the most common for high-end athletic fields because it provides acceptable stability and optimal drainage. However, sand rootzones may not be used on all athletic fields due to high construction costs.

CONSTRUCTED SAND ROOTZONES ARE USED ON MANY US COLLEGIATE AND PROFESSIONAL FOOTBALL FIELDS.

The objective of this research was to determine the impact of soil water content on the performance of hybrid bermudagrass on cohesive soil (silt loam) and non-cohesive (USGA specification) rootzone when subjected to traffic. Two field studies were conducted from 2014-2015 at the University of Tennessee Center for Athletic Field Safety (Knoxville, TN) to determine soil water content impact on compaction and loss of green turfgrass cover on 'Tifway' hybrid bermudagrass. Study I was conducted using plots established on a Sequatchie silt loam soil (fine-loamy, siliceous, semiactive, thermic

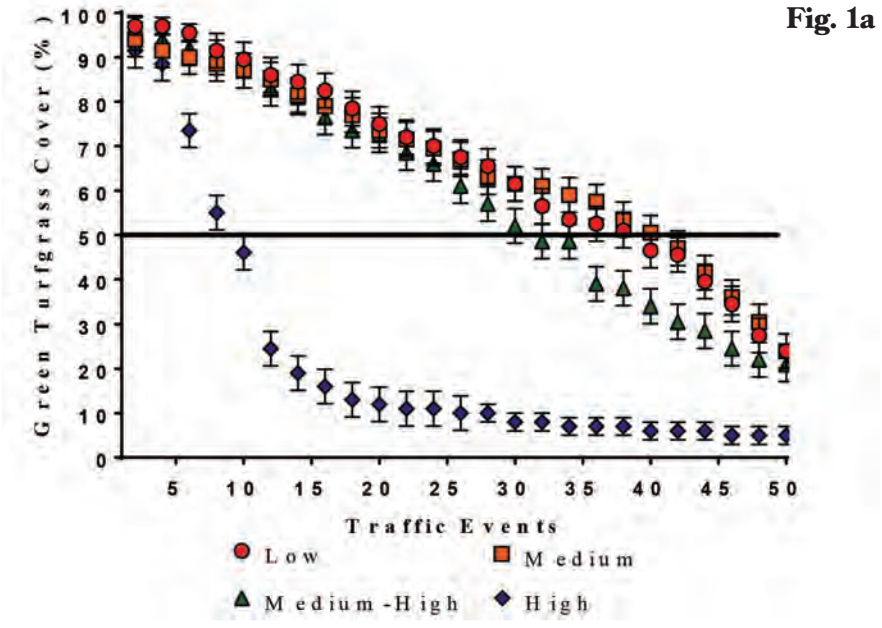


Fig. 1a

Humic Hapludult). This soil was selected due to its common use on high school athletic fields in Knoxville, TN. Study II used plots established on a sand meeting USGA specifications (0.7% very coarse, 14.3% coarse, 61.4% medium, 18.1% fine, 5.1% very fine, and 0.4% silt and clay by weight) mixed with 20% (volume) reed sedge peat moss.

Study I had four soil moisture ranges: low (6 – 13%), medium (14 – 21 %), medium-high (22 – 29%), and high (30 - 37%). Study II soil moisture ranges were: low (5 – 11%), medium (12 – 19%), and high (20 – 27%) throughout the study for both years. Differences in the amount of ranges between rootzones were due to plant available water of the soil texture. Water was applied to each experimental unit as needed based on the average of seven rootzone moisture measurements (3 in depth) collected daily using a handheld time domain reflectometer (TDR) probe. Traffic was applied to both studies using a self-propelled core aerifier similar to the Baldree Traffic Simulator (BTS) described by Kowalewski et al. (2013). Each plot received 50 traffic events each year.

Silt loam rootzone

THIS STUDY'S FINDINGS indicate that increased soil water content on cohesive soils resulted in greater loss of green turfgrass cover when trafficked (Fig. 1). High soil water content ranges lost green turfgrass cover approximately four times faster than the low or medium soil water content and three times faster than medium-high soil water content treatments (Fig. 1). Surface hardness varied across traffic events due to soil water content (Fig. 2). These findings indicate surface hardness of a field can be manipulated by adjusting soil water content, suggesting that high soil moisture and soil compaction have significant impacts on surface hardness values. Cohesive soils, due to the higher quantities of silt and clay, are more responsive to increases in water content.

Regardless of soil water content, soil bulk density increased as traffic events increased. The increase in soil bulk density was due to reduction of the air-filled pore space of soil. Shear strength declined most rapidly at the high soil water content treatment (Fig. 3). The high soil water content had the greatest loss of green turfgrass cover, extremely low surface hardness values and unacceptable shear strength throughout a majority of this study. This study found plots maintained

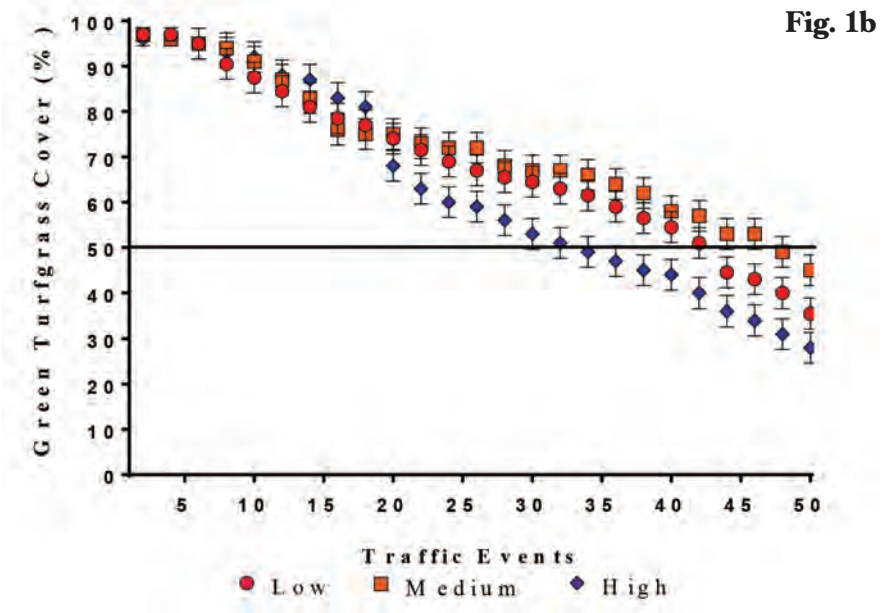


Fig. 1b

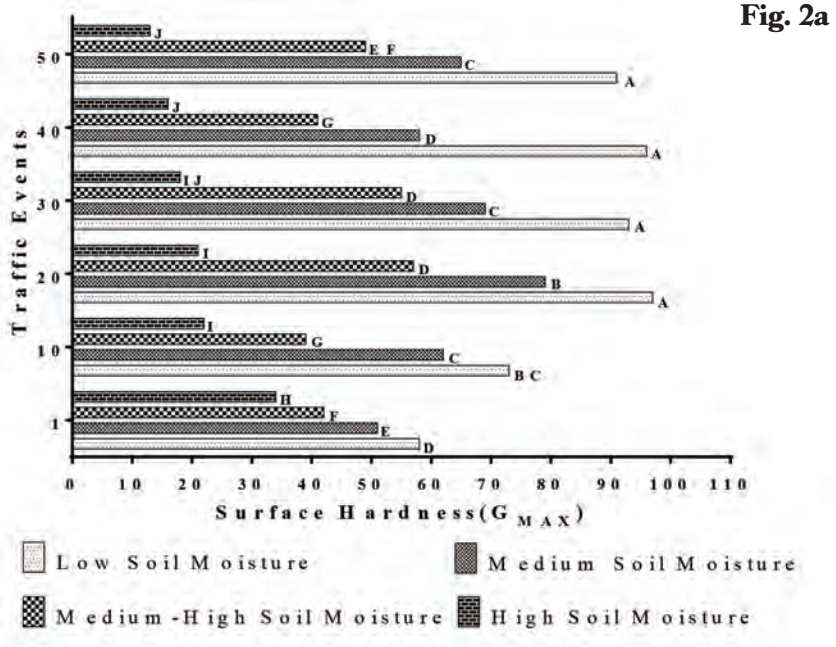


Fig. 2a

SOIL WATER CONTENT TREATMENTS MINIMAL IMPACT ON HYBRID BERMUDAGRASS TRAFFIC GREEN TURFGRASS COVER LOSS ON SAND ROOT ZONES WITH FEW DIFFERENCES DETECTED AMONG FIELD PERFORMANCE CHARACTERISTICS OR SOIL PHYSICAL PROPERTIES.

at 7 to 20% soil water content provided the optimal surface for athletic field performance for the silt loam athletic field.

USGA sand specification rootzone

SOIL WATER CONTENT treatments had little impact on the non-cohesive root zone when trafficked. The high soil water content treatment resulted in less than ideal surface hardness values, but not unstable conditions (Fig. 2). Soil bulk density increased six percent after 50 traffic events, which was accompanied by a six percent decrease in air-filled porosity (data not shown). Results suggest that shear strength values were not affected by soil water content in the sand rootzone, but by the loss of green turfgrass cover due to traffic (data not shown). No optimum soil water content range was identified of those tested in this study for the sand rootzones.

In this study 50% was selected as the worst case for low input athletic fields (i.e., parks, recreation, etc.). The authors are aware that higher green turfgrass cover levels could be the minimum acceptable limit for professional athletic fields. Also, the soil water content ranges determined as optimal are not for all root zones, these are only for the listed soils described above. Slight changes in the composition of sand, silt, and clay in addition to sand particle size could greatly change the optimum ranges for those soils.

Conclusions

RESULTS FROM THIS RESEARCH indicated that hybrid bermudagrass established on a silt loam soil performs best when soil water content ranges were in the low and medium range. These results of the optimal range for silt loam soils correspond to plant available water and potentially explain the superior results. The high soil water content treatment lost cover at a rate four times faster than the low and medium soil water content treatments. The high soil water content treatment decreased turfgrass stability and negatively impacted field performance because of the saturated soil conditions. Soil water content treatments minimal impact on hybrid bermudagrass traffic green turfgrass cover loss on sand root zones with few

Neyland Stadium on the campus of the University of Tennessee.

Fig. 2b

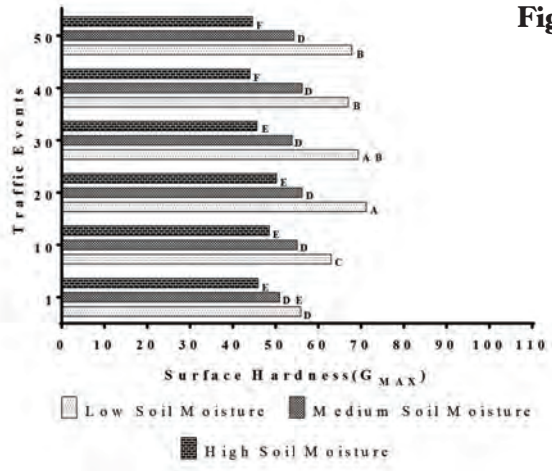
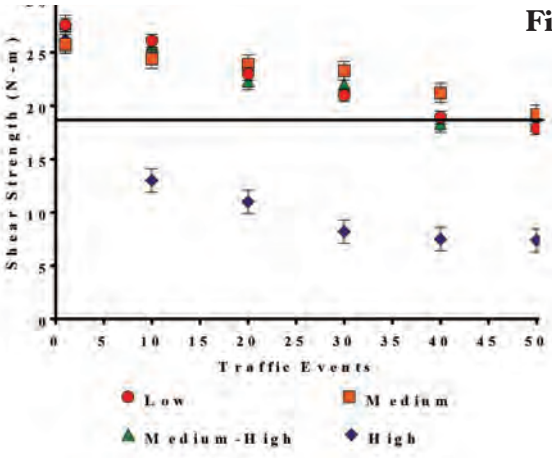


Fig. 3



differences detected among field performance characteristics or soil physical properties. Our results indicate that low to medium soil water content provides optimum field performance for hybrid bermudagrass on silt loam rootzones, while no optimum range was identified in sand rootzones. **/ST/**

Kyley Dickson, PhD, is a turf researcher at the University of Tennessee; John Sorochan, PhD, is a professor turfgrass science at UT and director of the University's Center for Athletic Field Safety.

PHOTO COURTESY OF STMA

Advice on finding a new job

5 tips to readying your resume

Your resume is your calling card. It should provide enough information about you to persuade the prospective employer to invite you for an interview. That's it; the total purpose of your resume is to get your foot in the door for an interview, where you can sell yourself to the interviewer. To make your resume a most effective tool for your job search, consider these tips:

1 Customize your resume for the position to which you are applying. The easiest way to do this is in the "Objective," which should be at the top of your first page. For example, let's say your objective is "to be employed by a sports facility that is committed to providing the highest quality fields for its athletes." You find out through the STMA Career Center that a position becomes available at a soccer complex. Then you would change your objective to "… be employed at a soccer complex that is committed …"

2 Use white space. It is okay to have your resume be two pages, which is standard, especially if you have any experience. Do not use small type and all available space to present your resume on one page. You want the prospective employer to read it, so make it easy to read, so be sure to also use a simple font. There are hundreds of fun fonts available, but don't use them on your resume. You want the prospective employer to spend time reading about you, not trying to figure out the words.

3 When describing your previous job responsibilities, write in an active voice, showing how your work provided value,

2-page resumes are fine; make it readable

Don't confuse qualifications with accomplishments

Make the best possible first impression

Overusing the word "I"

EDITOR'S NOTE: This material and other professional development information appears courtesy of the Sports Turf Managers Association

and use bullets. For example, "Improved football field conditions by implementing a consistent mowing program" is better than "I was responsible for mowing the football field prior to weekend games."

4 Do include your community and professional organizational involvement, but do not include personal information, such as marital status, number of children, religious affiliation or other information that is not relevant to the job.

5 Think about what qualifies you for the job and include it in your resume, typically under a heading called "Summary of Qualifications." This section can change to meet the requirements that the employer is seeking. It can also be more global and highlight the overall qualities that make you a top sports turf manager and a desirable employee. Don't confuse your "qualifications" with your "accomplishments," which should be another section that highlights the noteworthy activities that you successfully completed.

From the Sports Turf Managers Association's Knowledge Center, www.stma.org.

> "ALLOWING YOUR INTEVIEWER TO SET THE TONE OF THE CONVERSATION WILL PUT HIM OR HER AT EASE AND MAKES THE CONVERSATION FLOW MORE NATURALLY."
>
> *– Deborah Walker, CCM*

Top 5 interview mistakes

We've all heard stories of job candidates who looked great on paper but who were absolute disasters in person. With fewer interview opportunities available in our competitive job market, it's essential to make the best possible first impression. Learn from the mistakes of others and avoid these top five worst interview blunders:

1. Not preparing for the tough interview questions. Like every job seeker, you probably have your own set of tough interview questions you hope will never be asked. The best strategy is to prepare ahead of time with answers to ALL of these questions. A career coach can be a great resource for helping you work out suitable answers with a positive spin on negative or challenging career situations.

2. Failure to match communication styles. Making a great first impression is easier to do when you communicate effectively with your interviewer. The best way to do this is by mirroring his

PHOTO CREDIT: STEVE BUSH, CSFM

Top 3 cover letter mistakes

These days a cover letter also might be the body of an email you're sending someone with your resume attached, but there are still hard copy letters being sent, of course. Deborah Walker, CCMC, career coach and resume writer, says, "As a career coach and professional resume writer, I'm often asked 'How important are cover letters to my job search?' My answer is, "It depends on how long you want to search for your next job."

If you are in no hurry to get interviews, then don't worry about your cover letter.

The fact is I've never met a job searcher who wants to have a painfully slow job search. The whole point of sending out resumes is to get multiple interviews as quickly as possible. But many job seekers still unwittingly sabotage their efforts by using substandard cover letters. Instead of helping you, your cover letter may actually be hurting your job search.

For fast job search results, make sure to avoid these top three cover letter mistakes:

- Not understanding the hiring motives of your audience
- Repeating rather than introducing your resume
- Overuse of the word "I"

There are three basic audiences that a job seeker sends his/her resume to: executive decision-makers, resume screeners, and third-party recruiters. Each of these groups has its own hiring motives. Executive decision-makers are looking for candidates who will have a significant impact on bottom-line initiatives, such as time saved, income generated, revenue built, etc. Resume screeners are searching for candidates who directly match the lists of qualifications in the job description. And third-party recruiters are looking for selling points to help position you as a top candidate.

Knowing these hiring motives will help you craft your cover letter specifically to catch the attention of your particular hiring audience. By appealing directly to the reader, you are creating an immediate bond that will make you a stronger candidate.

Repeating the exact same things you wrote in your resume is one of the most common cover letter mistakes. No one wants to read the same thing twice. By the time most people have finished writing their resume, they feel that they have run out of ideas and just cut and paste to create a cover letter.

Instead, the cover letter should be what sells the reader on your skills. Like the jacket-cover introduction to a good book, the cover letter should give the reader a taste of the great

or her communication style. Allowing your interviewer to set the tone of the conversation will put him or her at ease and makes the conversation flow more naturally. For instance, if the interviewer seems all business, don't attempt to loosen him or her up with a joke or story. Be succinct and businesslike. If the interviewer is personable, try discussing his or her interests. Often personal items on display in the office can be a clue. If asked a direct question, answer directly. Then follow up by asking if more information is needed.

3. Talking too much. In my recruiting days, I abhorred over-talkative candidates, and so did most of my client employers who interviewed these candidates. Over-talking takes several forms; taking too long to answer direct questions gives the impression you just can't get to the point. Nervous talking gives the impression a candidate is covering up something or is outright lying. Practice answering questions in a direct manner. Using role-playing in preparing for your interview will help you avoid excessive, nervous talking.

4. Saying negative things about your current or past employers or managers. Even if your last boss was Attila the Hun, avoid stating your ill feelings about the person or work situation. No matter how reasonable your complaints, your negative comments will be viewed as disrespect toward your boss. When faced with the challenge of talking about former employers, make sure you are prepared with a positive spin on your experiences.

5. Giving away too much salary and earnings information. Candidates often weaken their future earning potential by speaking too freely about their current income. No matter the official salary range of the position you are interviewing for, your current earnings have an enormous effect on the size of the offer. Investing in a career coach to help you answer salary questions can add thousands of dollars to your new job offer. You already know that it takes a strong resume that sets you apart as a candidate of choice to be invited for an interview.

– Deborah Walker, CCMC, career coach and resume writer **/ST/**

things to come and encourage them to read more.

If you are don't have any idea what your top skills are and how they will help the company, neither will your reader. Take the time to craft the right words and statements to make your skills shine.

Overuse of the word "I"

A cover letter that begins nearly every sentence with "I" is as boring as a conversation with someone who only talks about himself. That kind of person one avoids at all costs. Is that the way you want your reader to see you?

Focusing all the attention on yourself may seem like a good way to sell your skills. But it can also reflect lack of interest in the company, in the job, and in making a real contribution to that workplace. There's a good balance to be drawn between selling yourself and selling what you can do for the company.

Creating variety in the sentences of your cover letter is an easy way to show your interest without being self-centered. By shifting the emphasis to the recipient/company and away from yourself, you can prove that your main interest is not just in winning the job but also in doing it effectively. Try to rewrite sentences that start with "I," "me," or "my," to start with "You," or "Your." Show how you can make a difference for them.

A cover letter that is poorly written may cause your resume to be ignored. But a well-crafted cover letter will invite and encourage the reader to take a closer look at your resume. You'll make a positive first impression before your resume is even looked at.

Rather than making your cover letter an afterthought, take the time to really consider the type of presentation your cover letter will make. It's true what they say: You never get a second chance to make a good first impression. **/ST/**

Going back to – or keeping – natural turf

The Baltimore Ravens went back to natural grass in 2016.

M&T Bank Stadium

Sean Kauffman, senior manager/assistant head groundskeeper, Baltimore Ravens, says the biggest driving force in going back to natural grass were the players themselves. "Don (Follett, director of grounds) had been nudging the organization in this direction for years and when the players were told this was a possibility, they overwhelmingly voted in favor of having a natural grass stadium surface," Kauffman says.

The initial grass chosen for the field was 419 bermudagrass. "It was one of those 'if it isn't broke, don't fix it' things," says Kauffman. "The Ravens had tried some of the newer varieties over time at the training facility, but with 419's track record along with some of the technology the stadium already possessed and would be possessing, 419 was an easy choice.

"Don ultimately made this decision before the conversion started and decided to get the sod from Carolina Green. We recently switched to Northbridge bermuda, also grown by Carolina Green," he says.

Kauffman says the conversion started in February 2016 and they had sod on the ground 1 week into May. The first event on the field was a Beyoncé concert in early June of that year.

University of North Carolina

Casey Carrick, director of athletic grounds and turf management, University of North Carolina says, "I know that going to natural is a big deal in our industry right now. We have a little different situation than just changing from synthetic to grass. We've always had a natural grass surface in Kenan Stadium, but due to

The University of North Carolina saved money by choosing to re-sod throughout a transition period rather install synthetic turf.

Casey Carrick, director of athletic grounds and turf management, University of North Carolina.

construction on our practice fields and lack of space, we discussed putting synthetic turf in. We ultimately decided to keep natural grass and re-sod as much as we needed to.

"Natural grass was the preferred surface by players, coaches, us, and trainers and it was the cheaper option," Carrick says. "By the end of the season, we had only used half of the amount of sod we had budgeted for, a significant savings versus going synthetic."

In an article he wrote for *Recreation Management* at the time, Carrick said:

"Initially, installing an artificial playing surface was discussed; this would allow the team to practice and play games during the construction. But that came with a hefty $1.4 million price tag. We explored the benefits of natural grass and its cost to maintain/replace worn areas throughout the year. Preserving the natural grass playing surface would also result in cost saving. In the worst-case scenario, replacing the entire field with new sod before every home game would cost $1 million. After meeting with the coaching and training staff to receive their feedback, all parties preferred natural grass, if possible.

"We now had the ability to provide players and coaches with their desired playing surface and save the university considerable amount of money. It was the best of both worlds. Our next step

was to work with a field contractor to figure out the details, such as: how much sod we'd need, how we plant it and logistics associated with removing a weathered field and installing new turf. This was a 5-month long process with many phone calls, meetings and trips to the sod farm.

"Shortly after the decision was made to stick with natural grass, the tremendous challenge of undertaking this task really started to sink in. Although it was not an easy feat, we would make this work; we had no choice. After consulting with fellow members of the Sports Turf Managers Association, I received valuable input and insights, which

Rebels return to their roots

In 2003, the University of Mississippi installed synthetic turf at Vaught Hemingway Stadium. By 2015 their second synthetic field was nearing the end of its lifespan.

Ross Bjork, athletic director, said, "We think it's the right thing to do for our program on many, many levels. Natural grass is the preferred playing surface of our players and our coaches. In the SEC West, Arkansas and we are the only two programs that have artificial turf. The rest have natural grass, so we think it's the right move."

The decision was made via unanimous vote to pull up the carpet after the 2015 season and replace it with natural grass.

A competitive bid process emphasized qualified sports field contractors with proven experience in projects of the size and scope of Vaught Hemmingway's Stadium.

Sports Turf Company Inc., Whitesburg, GA (STCI) with four certified field builders on staff and an extensive background in natural and synthetic field construction, won the contractor job. Aaron McWhorter, founder and president of STCI, pointed out, "Very few sports field contractors could have performed the scope of work which included field demolition and construction, storm water, concrete and coach's towers. It was realistically a 7 month scope of work, during the winter rainy season, with a 5-month timeline for completion."

Bob Calta, certified project manager of STCI, recalls, "It took a lot of time and a lot of planning on all ends before renovation and construction could even begin. There were a lot of considerations. Disposal of the synthetic turf. Deep excavation and extraction of fourteen inches of sand, clay, stone and synthetic field drainage components. Twenty or more owner-requested change orders with no change in deadline."

With a big project comes big challenges. Access to the stadium was limited to a very small entrance requiring low body single axle dump trucks to import and export all of the material at a painstakingly slow pace.

The schedule did not leave much room for problems encountered or weather delays. If a day was missed, other efficiencies had to be recognized elsewhere in the schedule to make up for it. By July the field had to be completely reclamated to allow the new sod time to become established before the first game.

The coordination of vertical stadium construction along with field renovation meant working closely with numerous other contractors and scheduling had to contemplate all activities. Silt washing down onto the field construction site from other contractors onsite further complicated construction activities.

STCI installed a complete natural grass field underdrain system including a 10-inch sand rootzone layer, 4 inches of gravel, and the drainage pipe itself.

The irrigation system for the stadium consists of a new booster pump and Hunter STK-6V's with eight retractable

Ole Miss went back to natural turf in 2016.

heads spread around the perimeter of the football field. Each head produces 326.8 GPM and distributes water to a range of 165 feet, making eight of them the max that was needed to cover the entire football field.

Certified Tifway 419 bermudagrass was installed inside Vaught Hemingway Stadium and on practice field number two to form a dense and durable surface. 419 bermuda's ability to recover from damage rapidly and its ability to withstand the rough and tumble nature of football makes it one of the most durable hybrid bermudas.

A total of 188,325 sq. ft. or 20 loads of sod, were delivered for the stadium and the natural grass practice field. After it was installed it underwent a growing period, where it rooted and knitted together during a 3-week process.

The success of this stadium can be attributed to the intelligent design and coordination of the many departments of the university. Short pile, high wear synthetic surface along the perimeter of the field will handle a lot of traffic from boom cameras, football players, referees and personnel. Overall this combination means the field will improve competition for players competing on a highly performing grass field while the perimeter of the field continues to look great.

was critical. The support we received from people all over the country in our industry was surreal; everyone also wanted to see this project succeed.

"Our judgment to keep Kenan natural grass worked, allowing us to keep a safe and playable surface for the entire season. If at any point we felt that a synthetic field would have been a better choice, we would have chosen that."

"After completing the pre-season and 25 practices, it was finally game week; and time to replace the field. The weather forced us to adjust our plans but, because of extensive preparation, the re-sod was installed without a hiccup. Carolina Green, Indian Trail, NC arrived on Wednesday after practice ended and began removing the turf. Working through the night, we laid the last roll on Thursday around 8 am. The grounds crew then began laying out stencils and painting. By 12:30 pm the field was ready. It rained 1.25 inches on Friday, and the field played perfect on Saturday.

"After five home games, we've only needed to sod 88,000 square feet, well under the 335,000 square feet we'd budgeted for after five games. The weather has been unseasonably warm through October in Chapel Hill, and that played a huge factor in recovery time after practices/games. With two home games left, the sports turf crew work with the football staff each week to decide how the field is holding up and what areas of the field require attention.

"It's vital to survey all possibilities and options. It may have been easier and less stressful to install an artificial field. But, by not settling and taking the easy way out, we provided our student-athletes with a safe and playable surface, but we did it at a third of the cost," Carrick wrote.

> **"IF AT ANY POINT WE FELT THAT A SYNTHETIC FIELD WOULD HAVE BEEN A BETTER CHOICE, WE WOULD HAVE CHOSEN THAT."**
>
> *– Casey Carrick*

Carrick added in an email to us in mid-July, "Overall we thought the field played great last year when you take into account all the traffic and wear it had on it. We felt it was as good of a natural playing surface that we could have asked for. It held up great, and we ended up re-sodding less than we originally thought we would have to during the season. Our players and coaches were also pleased with the results each time we sodded. "Construction on the new practice facility is a little behind, so the team will be practicing in the stadium for the first few weeks of this season. We plan to re-sod it again as needed until the new facility is completed." ***/ST/***

Simulated traffic machine

Effects of sand shape and turf type on hybrid systems being studied

// By BRI SCHNEIDER AND DAVID GARDNER, PHD

A study at The Ohio Turfgrass Foundation Research and Education Center (OTF) in Columbus, OH is looking at the interactive effects of sand shape, turf species, and type of hybrid turf system on field performance and wear tolerance.

Hybrid turf is a combination of polypropylene fibers attached to a weaved biodegradable backing mixed in with natural turf. Hybrid turf systems are generally believed to improve lateral shear strength. In the project, Eclipse and HERO hybrid systems from The Motz Group, Cincinnati, are being studied. One of the major differences between Eclipse and HERO is that the HERO hybrid system's fibers are the same height as the natural turf, whereas Eclipse hybrid system's fibers are shorter than the height of the natural turf. The turf species in this project are Kentucky bluegrass, tall fescue and perennial ryegrass, all of which are already being used in professional soccer stadiums.

Finally, the two sands utilized are angular sand and round sand. The angular sand the same size and particle density as USGA green sand and the round sand is 100% silica. The plots are being mowed three times a week at 1 inch with a 30-inch, all-electric Cub Cadet Infinicut mower. The round sand has shown differences compared to the angular sand as far as percent coverage of turf during the establishment phase during the fall of 2017. Establishment data was taken in case differences found during the actual data collection, scheduled for summer 2018 and summer 2019, can be tied back to differences in establishment.

Sand type was a major consideration for the creation of this project because constructing athletic fields on a sand base allows for more rapid drainage. The round sand has an infiltration

rate of 108.2 inches per hour whereas the angular sand had a much lower infiltration rate of 41.5 inches per hour. In short, the project's main goal is to compare all the elements to determine which leads to the highest performance for elite level soccer matches, while also keeping player safety in mind.

The secondary goal is to achieve a surface hardness, measured via Gmax, which ensures player safety. Measurements taken to achieve these goals will include Gmax, traffic, establishment, quality, soil moisture and sheer strength. By achieving these goals, elite level soccer teams will be able to have both safer fields and higher levels of player performance on more sustainable hybrid turf fields. **/ST/**

Brianna Schneider is a graduate assistant in the Department of Horticulture and Crop Science at The Ohio State University in Columbus; David Gardner, PhD, is professor, turfgrass science, at OSU.

All-electric Cub Cadet Infinicut mower

Brianna Schneider taking a measurement

EFFECTIVE IRRIGATION SCHEDULING

// By TROY LEEZY, CID, CWCM, CLIA

Having an effective irrigation schedule established is not only useful to help manage water and pumping costs, but also to help reduce disease, fertilizer use, runoff, and erosion. An effective schedule contributes to healthier turf and vibrant plants and groundcovers. The creation of irrigation schedules have matured in many ways from the old methods of arbitrary runtimes for spray and rotor zones, to utilizing full water audits, soil analysis, and daily, automatic sprinkler run time adjustment for evapotranspiration rates calculated by on-site weather stations.

Among the variety of solutions for irrigation scheduling are "smart controllers" offered by many manufactures that can help assist with daily irrigation scheduling adjustments. Smart controllers are irrigation controllers that have the ability to adjust the daily irrigation run times based on the weather conditions. These smart product offerings vary greatly in cost and complexity.

Some manufacturers offer simple and cost-effective add-on weather sensors that provide true onsite weather data that may be compatible with existing field controllers. Other more complex solutions

JOHN MASCARO'S PHOTO QUIZ

JOHN MASCARO IS PRESIDENT OF TURF-TEC INTERNATIONAL

ANSWERS FROM PAGE 17

These brown areas on turf are a result of poor sprinkler uniformity caused by clogged sprinkler head screens. This municipality uses an irrigation pond that is filled by rainfall, which can also be supplemented by adding water from a deep well. They also have a backup with the ability to use city water if the vertical turbine pump fails. In addition, drain lines from the recreation complex also flow into the pond after heavy rainfall events, allowing storm water from the park to be recycled and refill the irrigation pond. The area received a fair amount of rainfall over the winter and through the springtime, which allowed the Sports Turf Manager to take a break from using the irrigation system for almost 4 months. The first time he turned on the irrigation system after that, there was a substantial amount of decomposing organic matter from the storm water that was still suspended in the pond. This material moved into the irrigation system, clogging several screens in the irrigation system and causing poor sprinkler uniformity. Each nozzle had to be removed and cleaned in to restore the proper coverage for the turf.

Photo submitted by Tim Legare, CSFM, CPRP, CPSI, Director of Leisure Services for the City of Callaway, Callaway, FL.

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

may require existing field controllers to be replaced and add monthly subscription costs to supply the daily weather information from remote weather stations to the site. One of the widening trends with smart controllers is the ability to tie into a web-based environment, which brings a new level of control and alerts directly to managers' mobile phones. A key consideration should be that all weather-based controllers often need significant initial observation and adjustment before optimal performance is achieved.

Regardless of any technologies being employed, it is important to note that having an efficient system is paramount to effectively utilizing your limited water resources. It is a good idea, especially on older systems, to perform a water audit of the system or at the very least a tune up before addressing scheduling concerns. During a site inspection the system should be checked for damaged and leaking heads and to ensure heads are level and unobstructed. At this time, the pressure should also be checked at the nozzle to verify the optimum manufacturer pressure recommendations are met. If the pressure is too high, pressure regulation at the valve should be considered since high pressure can hamper efficiency just as badly as low pressure. If low pressure is observed refer to manufacturers' nozzle data. Often, smaller nozzles can be utilized to help reduce flow as well as restore pressure and nozzle efficiency to the system.

An irrigation schedule should be created for each month of the growing season. This will serve as a base schedule that will typically require only minor adjustments with the exception of extreme weather events like prolonged rain or above average heat. The first step in this process is to collect historic or average evapotranspiration rates for the local area. Evapotranspiration is the measured combined loss of water from soils by evaporation and plant transpiration. This data can often be accessed through a water purveyor website or by an Internet search for the best available local source. Once this data is gathered, you can derive how many inches of irrigation water is needed by plant type. The irrigation schedule would then be built to replace this lost moisture.

"IF YOUR BUDGET ALLOWS, STRONG CONSIDERATION SHOULD BE MADE FOR EMPLOYING IRRIGATION SYSTEM AUDITS AND NEW TECHNOLOGIES LIKE SMART CONTROLLERS TO HELP ACHIEVE OPTIMUM WATER SAVINGS."

– Troy Leezy, CID, CWCM, CLIA

An additional consideration of the efficiency of the irrigation system components also plays a role. Since no irrigation system is 100% efficient, additional irrigation will need to be applied to compensate for the difference between the plants' needs and the ability of the irrigation equipment to apply the water. Generally, rotary sprinklers range in efficiencies from excellent at 80% or higher, to a general average in the 70% range. Traditional spray sprinklers tend to be less efficient than rotary with the high range being 60% and an average around 50%. However, new spray head technology exists with rotator type nozzles that can easily bring the traditional type spray systems in to the 80% efficiency range by converting nozzles. Systems with pressure, flow, and maintenance issues can fall well below these averages.

As you prepare for your upcoming growing season, assess and repair the irrigation system at spring start up and generate an expected monthly irrigation schedule based on your local evapotranspiration rates. If your budget allows, strong consideration should be made for employing irrigation system audits and new technologies like smart controllers to help achieve optimum water savings. **/ST/**

Troy Leezy, CID, CWCM, CLIA, is Regional Sales Manager - Southwest/Mountain States, for Hunter Industries and has more than 33 years of irrigation industry experience.

SOME USEFUL SITES FOR IRRIGATION INFORMATION:

http://www.water.ca.gov/wateruseefficiency/landscape/
www.irrigation.org (Irrigation Association)
http://www.asic.org (American Society of Irrigation Consultants)
http://www.stma.org (Sports Turf Managers Association)
http://www.waterright.net (Center for Irrigation Technology, Fresno)

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Photo courtesy of Scott Stevens, CSFM, Elon University, Elon, NC

AERATION ADVICE

Editor's note: Due to a late problem in our production cycle, we present here some comments on aeration that originally appeared in our August 2015 issue:

Scott MacVicar, University of Washington

WE HAVE 150,000 SQ. FT. of natural, sand-based sports turf at the UW and another 130,000 sq. ft. of natural, native soil landscape turf. On the game fields (track, soccer and softball) we core aerify with 2" x 3" spacing 3 times per year and 2" x 4" spacing 3 times per year. We also solid tine these fields once each at 2" x 3" and 2" x 4". Core and solid tines are both 7" long by 7/8" diameter, producing a hole about 5" deep. These fields also get sliced with a 3-point hitch rolling slicer to a depth of about 5 inches approximately 3 times per year. We have also begun using the AIR2G2 on all of these fields and we air inject all of our fields about 3 times per year. We also spot aerify with a walk behind machine called a PLUG'R, which produces a 2" deep hole and is propelled by the tines going in at an angle and moving it forward, so the operator can hold the machine back to produce numerous holes in a small space. We use this around irrigation heads and along concrete or rubber track field edges. All of the above does not include the times that we will spot aerify certain areas of compaction, usually with the slicer or solid tines.

The benefits of this amount of aerification is overall plant health, relieving compaction and increased drainage because our biggest challenges that we have to deal with is the amount of use our fields get during that same 8.5 month window of time that we have to work on them. Most sports in college have spring and fall seasons; one is the regular season that you see on TV but the other one always includes practice and games that don't make that much difference to groundskeepers because we still have to have it set up optimally, whether it is a drizzly practice during the spring for a soccer game or hosting an NCAA tournament game on that field in November. The main challenge is scheduling our grounds practices around the teams wants for field use. Luckily we at the UW have a very understanding group of coaches that want our fields to be in great condition at tournament time so they have learned to listen to some of our suggestions with regards to how much use they put on those fields earlier

in the season, so that they still have something left toward the end.

All of our aerification happens from March 1 through November 15 because the plant is not repairing itself during those winter months here at 47 degrees latitude.

We also use the PLUG'R machine on our landscape turf areas about 3 times per year at a spacing of 3" x 6".

One of the aerification tricks I learned at a previous job (minimum crown baseball field) was to solid tine aerify about 3 passes (the width of the trap), in advance of the rain, along the back edge of the infield skin, right where the tarp will be dumped, to help that large mass of water to percolate faster and not flow back onto the infield skin.

Randy M. Haffling, Moravian College (PA)

WE HOLLOW TINE (4") all of our fields (baseball, field hockey, soccer/LAX, softball and a practice field) immediately following our fall sports season and again immediately following our spring sports season. We use deep (10") soil-tines on our fields in early August before our fall sports pre-seasons start.

We couldn't ask for better turf cover. Our aeration program has contributed toward thickening the turf and when we take samples it is not uncommon to find the roots extending 8" or more into the soil. Our soccer field held water to the point that it was almost unplayable 6 years ago, now for approximately 4 years because of aerating the field drains and is playable after 1 1/2" of rain.

The challenges for us have been scheduling the aerations. We used to deep solid-tine the baseball and softball fields in the spring, before the start of their seasons. However the coaches didn't like that because they felt that it disturbed to surface of the field too much even though I always followed up with rolling the fields. The only other thing we face is making sure that the cores that we pull with the hallow-tine aerator are broken up enough as to not cause damage to turf because soil is left on top of the grass.

> "ANY CULTURAL PRACTICE TO HELP OPEN UP THE SOIL FOR BETTER GAS EXCHANGE AND RELIEVE SOME COMPACTION IS A BENEFIT."
>
> *– Bruce Suddeth*

Bruce Suddeth, University of South Carolina Upstate

WE USE ONLY hollow tines with various pieces of equipment: a Toro 687 3point hitch with ¾" hollow tines, a Deere AerCore 1500 with ½" tines, and an AerCore 800 with 3/8" tines. We also contract out some of our deep tine aerification and that is done with 13/16" tines. What we consider our solid tine type method is using a Ryan TracAire 3-point hitch unit with slicing tines and a SISIS MaxiSlit with slicing blades.

Beginning in early May we aerify any field not overseeded with perennial rye with the Toro 687 with ¾" tines. Depending on when softball and baseball, which is overseeded, complete their schedules, it could be late May when we begin aerifying with the Toro 687 with ¾" tines.

In June and July we deep tine with either the JD AerCore 1500 with ½" tines or contract some deep tining with 13/16" tines.

The Deere 800 with 3/8" tines is used on our baseball infield, practice area, and Mini Verde golf green in late June, then again in late July while the turf is actively growing.

We don't do much deep tining after the end of July or first of August due to the teams coming back on campus for practice and games.

We do use our TracAire slicer and MaxiSlit a good bit. The TracAire is used on all fields beginning in May on a 2 to 3 week interval. We try to alternate in the MaxiSlit about once a month during the growing season of the hybrid bermuda.

The TracAire is also used on our baseball grass base paths to help with compaction during the season whether the bermuda is overseeded or not. It's not obtrusive and doesn't impact play.

Any cultural practice to help open up the soil for better gas exchange and relieve some compaction is a benefit. I don't think you can beat up hybrid bermuda enough with an aerifier. It's pretty obvious when you see the turf around each aerification hole greener than where not aerified. Coupled with frequent topdressing and correct nutrients and water management the bermuda responds to aerification well.

The only challenges with aerification, and this mainly pertains to our fields with installed drainage and sand channels, is that we like to remove the cores so it doesn't contaminate the sand channels as much. Being in the Upstate of South Carolina we have a heavy clay content. The other challenge is being able to perform the aerification during activities on the fields whether it is practice, games, camps, weather, etc. You have to be flexible and get it done when you can.

Allison Moyer

[Note: Allison was with Collegiate School in Virginia when she contributed these comments; she is now at the University of Richmond.]

We are very aggressive on aeration at Collegiate and we hollow tine. This year we sliced our fields for one of our aerations, using a piece of equipment called a ShockWave. We were able to get down 15"!

We like to aerify at least 1x/month in the growing seasons (May, June, July, August, Sept). If we can fit more in, we will try.

Aeration improves our fields' health. Overall, it helps reduce compaction from all the use and gets air to the roots. It also helps keep our fields "soft."

Scheduling and clean up are the biggest challenges we face with aeration. ***/ST/***

NEW VERTI-DRAIN "THE BULLET"

Introducing 'The Bullet' by Redexim North America. This new Verti-Drain has working speeds near 4 mph for the highest performance in its field. The Bullet has working widths of 64 and 83 inches and is the most productive Verti-Drain ever built. It is heavier built than other high-speed aerators, yet it can be used with tractors starting from 45 hp and up. Both models are low maintenance with sealed bearings on most pivot points, a single-speed gearbox and optional hydraulic depth adjustments made from the tractor seat. These units penetrate 9 inches into the soil, and our patented parallelogram action give you a true forced heave to the tines, thus producing the shattering effect and relieving compaction leaving the surface ready for play. No parallelogram, no forced heave.

DEERE AERCORE 1500 AND 2000

The John Deere Aerocore 1500 and 2000 aerators, offering a 57.5-inch and 77.5-inch coring swath respectively, allow operators to efficiently aerate without sacrificing time or quality. The Flexi-Link coring system on the 1500 and 2000 models ensures the tines stay perpendicular longer, resulting in a higher quality hole. The belt-driven design on the Aerocore models is quieter and doesn't require lubrication, making it easier to maintain. The 1500 and 2000 models are both tractor-mounted systems, allowing the operator to work efficiently, pulling as many as 30 cores per a square foot depending on the ground speed of the tractor. The large six-inch diameter roller offers better ground clearance and reduces the potentially for turf scuffing, and four tine holder size options provide a solution for any type of turf.

TORO PROCORE 648

From the innovative wheels within the coring path, to the large 48" aeration swath, there's nothing ordinary about the ProCore 648 aerator. Years of research, customer input, testing and attention to detail went into making the ProCore 648 the most productive and efficient walking aerator on the market. The ProCore 648 has an operating weight of 1,590 pounds, and features an aeration depth of up to four inches. The unit is equipped with a 23-hp Kohler gasoline engine and can reach speeds of up to 3.5 mph. To give the ProCore 648 its uncommonly smooth operation, the action of the tine arms is modeled after a six-cylinder car engine. The arms work in pairs to counterbalance the coring action. This precise configuration virtually eliminates hopping, rocking and unnecessary vibrations. Additionally, the patented 3-wheel series/parallel traction drive, combined with high-torque, low-speed wheel motors, prevents slippage for reliable traction and even hole spacing.

GROUND-DRIVEN GREENSSLICER

Imagine if you had the ability to spike or aerate without all of the complex machinery, operating with efficiency AND performance without killing your budget. The GreensSlicer by GreensGroomer Worldwide is the answer. An affordable alternative to motorized methods, the GreensSlicer is a ground-driven, well-engineered performer. Its front and rear axles are split in half, thereby reducing damage to turf while turning. This allows turns without raising the unit into transport mode. Reliability and longevity at its soul, the GreensSlicer is designed and tested

for overseeding, opening localized dry spots, and aeration. As a straight, tow-behind unit, the GreensSlicer avoids all of the mechanical problems associated with hydraulics and engine operations. The GreensSlicer is simply one of the smartest solutions to turf maintenance.

TURFCO TURNAER XT8

Turfco's TurnAer XT8 stand-on aerator is the solution for sports turf managers who want to increase productivity and reduce downtime. With an aeration speed up to 7 mph, the XT8 can cover more than two acres in an hour. Sports turf and surrounding grounds are no challenge for its raised ground clearance, zero-turn agility and 30-inch aerating width. Turfco's patent-pending Auto-Depth Control also allows operators to set a tine depth that is consistent across a property, regardless of turf conditions. Sports turf managers will also see reduced downtime from the XT8 with its: covered drive chains located outside the aeration area; sealed, self-aligning bearings near the aeration area; easily accessible chain tensioners; and 22-horsepower engine equipped with a cyclonic air cleaner.

DRYJECT LLC, FRANCHISE-BASED AERATION SERVICES

DryJect proprietary equipment features the only proven technology of its kind. High-pressure water penetrates the turf rootzone, and dry amendments including sand/peat mixtures, inorganic soil

amendments and more are injected into the aeration holes. Key benefits are speed and labor savings. DryJect aeration is very effective and is a viable alternative to core aeration.

TURFSLICER FROM G2TURFTOOLS

A patented turf-slicing device installed on the g2 turftools turffloat or mini turfroller provides an easy and effective way to grind up and redistribute aerification cores to low areas. The unique slicing action of the turfslicer blades also penetrates the thatch area to provide much needed air space while cutting and replanting existing stolons to promote a healthier, thicker turf. When installed on the g2 turffloat, the 1/8" stainless steel blades have proven effective in redistributing aerification cores with just two passes eliminating harvesting or repeated dragging to remove cores. With adjustable frame mounts the patented slicer blades can be raised clear of the surface for free floating action or set to a depth of 1 1/2" for maximum slicing of turf or sprigs.

TURFTIME EQUIPMENT AERATOR

The heavy-duty aerator from TurfTime Equipment is a best buy for your turf maintenance equipment fleet. These rugged turf aerators will handle a large percentage of the workload of a deep tine aerator for much less money and do the job in less time. Whether you prefer coring aeration or slicing aeration, this Advantage Aerator will suit your needs. Features include: chisel point sport tines 7.5" x 3/8" thick; wheels are on 6" centers; 65-gal. water tank for extra weight; 3-point hitch frame has both Cat I and

Cat II hitches. Options include: fine tine 6.3" long x 1/4" thick; fracturing tine 8.5" long x 1/2" thick; coring spoons - 1" OD x 7.5" length with 10 spoons per wheel; smoothing roller; wheel spacing on 4" centers versus standard 6"; and hydraulic wheel kit.
**Hydraulic wheel kit.*

AIR2G2 324

If you have back-to-back games and events, intense rainfall and constant "wear and tear", it sounds like your field needs an Air2G2 324 treatment. The Air2G2 324 uses a proprietary air-injection process to relieve compaction, increase porosity and enhance respiration. Without damaging the playing surface or the roots below, the Air2G2 324 laterally injects air into the soil profile, to fracture hardpan layers, enable drainage and aid in player safety. Unlike traditional aeration methods, the Air2G2 324 doesn't leave a mess of cores to clean up, so your field is game day ready immediately after treatment! Move water off the field quickly on rainy days or drain the tarp dump area following a rain delay. Treat today, play today!

GET PERFECTION FROM EVERY TINE

Jacobsen GATM series aerators are built to tackle sports fields, all with precision performance, heightened productivity and elevated turf health. A deep-tine aerator, the GA600 creates unmatched hole quality over a

wide area and when equipped with an optional AerStrike 4 attachment can perform deep and conventional tine aeration in a single pass. The intermediate-depth GA450 and GA580 achieve unparalleled hole quality, with increased speed and productivity. Every GATM series aerator is equipped with PerfectStrike technology, which ensures tines enter and exit the turf vertically, delivering unrivaled hole quality with minimal damage to the root zone. Strategically mounted rollers enable the GA series to provide superior ground-following capability and consistent aeration quality and depth.

IMANTS SHOCKWAVE

The Imants ShockWave is a linear decompactor, designed to revitalize heavy wear areas by relieving soil compaction, improving aeration and remove surface water, all without disruption to the playing surface afterward. The Imants Rotoknife is a versatile linear, disc-aerator designed to relieve surface compaction, improve aeration, reducing thatch build up and removing surface water. The Rotoknife is fast across the surface, which makes this an ideal, versatile rootzone management tool for a variety of turfgrass managers on both warm and cool season grasses. The Imants Rotoknife can be set in any of five positions offering flexibility in working depth and linear spacing, allowing deep slicing to a depth of 12" or shallow slicing at 2" spacing. The Imants Mini Rotoknife offers the same great benefits of the Rotoknife in a compact lighter form factor. The disc rotor shaft can be set in 3 positions, giving flexibility allowing

slicing to a depth of 6" or as shallow slicing at 2" spacing. The Mini Rotoknife is available in towed or mounted format and compatible with most trucksters or compact tractors.

TURF PRIDE AERATORS MADE IN USA

The mainframe is one-piece solid steel. Crank assembly is driven by one chain drive and three heavy-duty belts, dividing the drive torque with less stress to the connecting arm assemblies resulting in longer life of the crank assembly. The crank assembly with perfectly timed off sets between each connecting arm assembly maintains balance without the need of counter weights. The patented spring loaded tine assembly arms and the parallel linkage arms perfectly position the tines so they move down and back, producing maximum aerating action deep into the soil without disturbing the playing surface. Front and rear roller widths 54" and 70"; options include Turf Pride's core collector, for core removal.

EXMARK 24-INCH STAND-ON AERATOR

The new Exmark 24-inch stand-on aerator features a compact design that significantly increases productivity and efficiency. Designed to easily fit through 36-inch gates, the machine features an efficient hydro drive system with infinite speed control up to 6.8-mph. The compact design heightens maneuverability, and the simple, ergonomic controls are easy to use. The foot activated hydraulic tine control frees the operator's hands to control the machine, making it easy to disengage the tines to perform a zero-turn maneuver. Mass is centralized over the coring tines for maximum core depth consistency, which is electronically adjustable from 0.5- to 5-inches – no tools required. The Smart Controller tracks machine hours and maintenance reminders, and the easy to use LCD screen displays depth settings, service reminders and more.

GKB ECODRESSER

Would your turf benefit from decompaction/slit aeration and natural organic topdressing? Have you seen a reduction in the labor force? If so, STEC Equipment can assist. The GKB Ecodresser can complete BOTH of these cultural practices in just ONE PASS. Call STEC today at (888) 325 – 2532 to find out how this machine can become your new "Best Hire"!

DEGRADE SUMMER SLUDGE BUILD-UP IN RETENTION/COLLECTION AREAS

Brookside Agra has developed a non-chemical and all-natural product called RemediPro to safely degrade sludge build-up and improve water clarity in closed and slow-flow water systems such as ponds and lagoons. Utilizing a proprietary, 5-strain bacteria blend, RemediPro works to naturally reduce organic levels of scum, sludge, fats, oils and grease that can threaten good water quality and aquatic life in water retention and collection areas, lakes, ponds, animal manure pits, water gardens, fish farms and hatcheries. RemediPro creates no risk to the environment, animals, humans or aquatic life with its only by-products of carbon dioxide and water. RemediPro is a dry bacterial blend available in conveniently packaged, cost-effective 8 oz. and 16 oz. water-soluble pouches that are simply tossed into the water for ease of dosing.

SPORT NETTING CURTAIN SYSTEMS

Sport Netting Curtain Systems from Grand Slam Safety, LLC are more than just your average gym divider curtain. Our sports netting curtain system is designed allow facilities to separate their spaces into customized divisions. By being able to quickly and efficiently re-arrange your facility on the fly, you will be able to accommodate sporting events or tournaments in a timely manner. To further accelerate the process, the track for some of our system allows for simple and easy lateral movements of the sports netting. When you stop, the sports netting stops and locks into place, creating the size and shape of the space you desire. With a pull on the unlocking mechanism, the gym divider curtain is ready to be moved again, either to the end of the track system for convenient out of the way storage or to create another customized space.

CLUB CAR'S NEW CUSTOMIZABLE SHOWCASE VEHICLES

Club Car has launched a new line, "Showcase Vehicles," of which each is intended for a particular application and based on the appropriate Club Car platform. However, customers can configure the vehicles for their individual needs and sites.

Examples include: Carryall 900 Grounds Maintenance Vehicle with a bed length of 101", it accommodates stake sides, rear receiver, reverse buzzer, power steering; Carryall 1700 Long-bed All-wheel Drive with an extended bed, cargo box, high-dump hopper, stake side kit, van box, electric bed lift, power steering; Carryall 1500 Automatic All-wheel drive Snow Removal Vehicle. Add a cab, electric bed lift, salt spreader, power steering or other items. Straight or V-plows available; Carryall 1700 six-passenger All-wheel Drive Utility Vehicle; Carryall 1500 Snow Removal Vehicle IT with automatic all wheel drive and our IntelliTach quick-change hydraulic tool attachment system.

NEW FOX VERSAPLOW SKID-STEER MOUNTED PLOWS

The new Fox VersaPlow combines the functions of a box-style containment pusher, a backdrag containment box, and a conventional snowplow into a single unit that mounts to a skid-steer or compact loader. The Fox VersaPlow is available in 8-foot and 10-foot blade widths with a steel trip-edge or urethane resilient-edge. Advanced hydraulic controls allow operators to change the configuration of the VersaPlow without the need to mount or re-mount equipment. The unit is available with a 14 pin connector to fit most skid steers and compact loaders, a 7-pin CANbus adapter for late model Bobcat® machines or a universal single-button diverter control and harness. The Fox VersaPlow comes in floating or standard mount configurations. **/ST/**

Continued from page 16

ST: What advice can you share with younger turf managers about being successful in the profession?

ALBINO: The advice I would give to younger turf managers is to get involved. Join your local chapter and participate rather than just attend meetings. Go to the STMA National Convention and expand your horizons and networking opportunities. Hang out with others that have a passion for our profession. I would also say that if you lack that passion in your gut, you should find another job. I have been doing this for over 40 years and I still love what I do!

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

ALBINO: Outside of work I would say my greatest passion is my family. I have been married to my wife Karen for 44 years; we have four children and eight grandkids. Hanging out with my grandchildren brings me incredible joy. I also like growing a huge vegetable garden and enjoying the hot peppers I grow and can. What a treat mid-winter! I like sitting around a fire with family and friends enjoying life. I hunt and fish and we eat what we harvest. Quite often I sit back and reflect on what a great life I have and thank God for all the blessings in my life. **/ST/**

FIELD OF THE Year

FIELD

LONGFELLOW PARK

PARK DISTRICT OF OAK PARK

LOCATION

Oak Park, IL

Category of Submission: Schools/Parks Soccer
Sports Turf Manager: Travis Stephen
Title: Sports Field Manager
Education: Degree in Turfgrass Science from Ohio State
Experience: Having grown up on a dairy farm, I always had the desire to pursue an agronomic career following high school. Throughout my college courses at Ohio State I soon came to the realization that turfgrass management could be my career path. I began working in the turf industry at Muirfield Village Golf club, home of Jack Nicklaus and the PGA Memorial tournament. It was a great learning opportunity, plus experience on how to appreciate the fine attention to detail from one of the top golf courses in the country. After 2 years at Muirfield Village, my desire shifted to sports turf and I began working on the athletic fields at OSU. While at OSU, I was fortunate to be exposed to a variety of sport surfaces and ultimately, leaned towards baseball. I was hired by Texas Rangers organization and worked for the Clinton LumberKings single-A affiliate for 3 years in Iowa. I then moved on to Rockford RiverHawks baseball club in Rockford Illinois for 3 years. Although I enjoyed working in minor league baseball, I felt that I still needed something more. A new opportunity developed with the Park District of Oak Park for a sports field manager. There was community outreach to focus on improving athletic fields due to poor field conditions. Due to this, the Park District of Oak Park implemented a new position for a sports field manager whose job it would be to tackle this obstacle. I was happy they found my qualifications as a right fit for the job. I knew it was going to be a challenging endeavor in my career but it has been by far the most rewarding working experience I've had.
Full-time staff: Robert Kurtz, Matt Keovan, Gail Fitch
Part-time staff: Ian McCambridge, Nick Panza
Original construction: 1924
Turfgrass variety: The turfgrass varieties that we use at the Park District of Oak Park are Kentucky bluegrass and perennial ryegrass. We typically use the following cultivars for Kentucky bluegrass: Rockstar, Blue Chip Plus, Appalachian, Gateway, and Barvette HGT. For perennial ryegrass we use Accent, Caddieshack, Goalkeeper, and Top Gun.
Overseed: We do regular overseeding in order to keep up with the amount of play and on the field. We overseed high traffic

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

areas (goalmouths and center of the soccer field) weekly during spring and fall soccer season with perennial ryegrass. Before and after each season we use the Turfco Tri-wave slit seeder for the entire field in two directions. Monthly we broadcast spread 70% Kentucky bluegrass/30% perennial rye blend with the Vicon spreader and let the players cleat in the grass seed.

▸ **Rootzone:** We applied 44.26 tons of 7/2/1 sand/peat/humus organic topdressing mix to the field in order to improve existing soil. The soil composition at Longfellow Park is a native soil consisting mainly of a clay loam. With this soil composition, drainage has always been an issue at Longfellow Park. The past 4 years we have aggressively deep tine aerated and topdressed with USGA spec 7/2/1 mix. We apply approximately 45 tons of material each year in an attempt to relieve soil compaction. We focus on these efforts, in conjunction with deep-tine aerating, to allow sand to settle into coring channels (therefore increasing water percolation rate). We have noticed significant improvements by adhering to this strategy, which has ultimately allowed for a substantial increase in keeping the field open and available for activities.

▸ **Drainage:** No system

Why STMA should consider your field a winner?

The Park District of Oak Park is located 12 miles west of downtown Chicago and is an eclectic community known for its architecture and arts. There are 52,000 residents in this 2.5 square mile urban community. Oak Park is ranked 6th in the nation for

density of population per square mile according to the US Census. There are 18 parks throughout Oak Park totaling 88 acres of green space with many amenities for citizens to explore and play. All parks are open for the community to use throughout the day, including athletic fields. Organized team sports must have a permit to use the field. We manage 16 athletic fields as well as seven additional fields for the school district with a budget of $85,000, which does not include labor. We manage all of the fields primarily the same throughout the year.

Longfellow Park, as well as the rest of the parks in the Village of Oak Park, is pesticide/herbicide free. When I first started working at the park district (4 years ago), many of the fields were approximately 75% infested with weeds. Chemically controlling weeds was not an option. We had to really focus our emphasis on increasing our turf maintenance practices and experimenting with different options to compete with weed pressure. To coordinate these sustainable practices we have developed and implemented an IPM strategy in our environmental policy.

Longfellow Park is a staple within the Oak Park community. The word multi-purpose could not be more fitting for this particular field. From U10 soccer, baseball/softball, lacrosse, Frisbee and football, athletes within the community use this green space throughout the year. Additionally, various members of the Oak Park community enjoy the park space for sunbathing, picnicking, and dog walking.

Maintaining this heavily used park, using a herbicide/pesticide-free regimen comes with its challenges, but we believe we have developed a strong maintenance plan to meet the needs of the community. Longfellow Park was one of the first fields to receive STMA Environmental Facility Certification, and it also was awarded the 2016 ILSTMA Field of the Year.

As a 2015 National Gold Medal winner, the Park District of Oak Park is proud to maintain this community space at the highest standards for our community to enjoy.

SportsTurf: What are your job responsibilities?

STEPHEN: Our park district has a total of 18 parks, totaling 82 acres of green space with various amenities for citizens to explore and play. My responsibilities include the turf management and maintenance for 16 park district athletic fields as well as seven additional athletic field spaces with the local school district. Additional responsibilities include the management of all non-athletic lawn spaces throughout our parks to ensure they are maintained at a professional level.

ST: What attracted you to this industry?

STEPHEN: Having grown up on a dairy farm in Ohio, I always had an interest in turf management and maintenance. At the time, I never knew that a turfgrass career existed (many people echo this sentiment when I tell them what my career is!). During my youth, I attended many professional sporting events and was always in awe at how well maintained those athletic surfaces were and had a true appreciation for all the hard work that was spent to make it look perfect. In college, I came to the realization that my desire to learn more about turf management was a possibility and pursing an agronomic career could be a reality.

ST: What do you do that's the most enjoyable?

STEPHEN: I really enjoy being able to give back to the community of Oak Park. We manage all of our athletic fields at the highest level possible for the community to enjoy. During my childhood, we were lucky that our athletic fields had grass growing

> "DURING MY YOUTH, I ATTENDED MANY PROFESSIONAL SPORTING EVENTS AND WAS ALWAYS IN AWE AT HOW WELL MAINTAINED THOSE ATHLETIC SURFACES WERE AND HAD A TRUE APPRECIATION FOR ALL THE HARD WORK THAT WAS SPENT TO MAKE IT LOOK PERFECT."
>
> *– Travis Stephen*

on them. Being able to provide the youth and adults in Oak Park with a safe and aesthetically pleasing playing surface is definitely the most enjoyable part of my job.

ST: What changes if any are you considering or have implemented for the winning field in 2018?

STEPHEN: We saw great success in the quality of our field through the management and maintenance techniques we utilized and and we will continue to maintain these same high standards in the future to ensure continued excellence.

ST: What are the biggest obstacles you deal with at work, and how do you try and overcome for them?

STEPHEN: One of the biggest challenges that we face within our park district is the community's pesticide and herbicide free policy. When I first started (over 5 years ago), many of the athletic field spaces, including Longfellow Park, were inundated with weeds. Instead of chemically controlling weeds, we had to focus our efforts on alternate turfgrass management principles. The only way to compete with the weed species was to aggressively aerate and overseed. Due to the persistent weed pressure, along with an established weed seed bank in the soil, we had to implement a long-term plan (knowing results would be slow at first). For aerating, we strictly use solid tines and typically aerate 6 times per year, with the intention of limiting the amount of contaminated soil with weed seeds that would be brought to the surface if we were to use coring tines. We have found that while being herbicide and pesticide free can be a challenge, our techniques have worked quite well and our athletic fields have greatly improved.

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

STEPHEN: STMA has been very beneficial for me in my career path in a multitude of ways. STMA was the resource I used when searching for (and locating) my current position. STMA has also has allowed me the opportunity to grow friendships and professional relationships with fellow turfgrass management peers across the country. Not only is STMA great for networking, but it has also been a great resource on the latest technologies and innovations with the turf industry. I would also like to add that the local chapters have also been a great asset and very beneficial. I encourage everyone to connect with his or her local chapters.

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

STEPHEN: The best advice that I have received for turf management is to never feel as if you are on your own – and never hesitate to reach out to others. It can be easy to get consumed by day-to-day activities and have a pinpoint focus on your athletic field(s). We are very fortunate to work in an industry that has support from all organization levels and I have yet to meet anyone that was not willing to help and give advice.

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

STEPHEN: Pretty much anyone that knows me would say my passion for work also extends to everyday life. Whether it be working on my own lawn, helping out a friend or neighbor, or teaching a lawn care class twice per year. Additionally, this September my wonderful wife, Caitlin, and I are expecting our first baby. I am really looking forward to that next chapter in my life (it is never too early to start working on the next generation of turfgrass professionals!). ***/ST/***

START PLANNING NOW TO ATTEND THE 30TH STMA CONFERENCE AND EXHIBITION IN PHOENIX

Here is a quick glance at the events, education and activities you'll find at the 30th annual STMA Conference and Exhibition, January 22-25, 2019, in Phoenix. Items that are in bold are new or being held at a new time!

The Certified Sports Field Manager (CSFM) Exam will be available to be taken electronically throughout the Conference rather than just two times. Look for the sign-up opportunity (for those who qualify to test) when the conference registration opens, which is in early October.

Don't miss the three new educational formats: Meet the Experts, Wednesday, January 23, 12 - 2 p.m. and Thursday, January 24, 1:30-6:30 pm; Experiential Storytelling, Wednesday, Jan. 23, 3:30-5; and Dotmocracy, Friday, January 25, 8 - 10 a.m.

IMAGE ©ISTOCKPHOTO.COM/DAVEL5957

SCHEDULE AT A GLANCE

MONDAY, JANUARY 21

6:30 - 9 pm	Registration Open

TUESDAY, JANUARY 22

6:30 - 8 am	Continental Breakfast
6:30 am - 5 pm	Registration Open
7:15 am - 4 pm	Seminar on Wheels Tour
7:15 am - 4 pm	SAFE Golf Tournament
2:30 - 5 pm	**Off-site, hands-on Field Management Stations**
6 - 9 pm	SAFE Night of Bowling

WEDNESDAY, JANUARY 23

6:30 - 8 am	Continental Breakfast
7 am - 5 pm	Registration Open
8 - 9:30 am	General Session
9:45 am - 12 pm	Conference Education
12:15 - 1:15 pm	Fun Run/Walk
12 - 2 pm	Break
12 - 2 pm	Women's Forum and Lunch
12 - 2 pm	**Meet the Experts**
2 - 3:15 pm	**Chapter Officer Training**
2 - 5 pm	Conference Education
3:30 - 5 pm	**Experiential Storytelling**
5:15 - 6 pm	Networking Sessions
6 - 7 pm	First-timers, International Attendees & **CSFM Reception**
7 - 7:30 pm	**SAFE Live Auction**
7:30 - 10 pm	Welcome Reception

THURSDAY, JANUARY 24

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

FRIDAY, JANUARY 25

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

SATURDAY, JANUARY 26

8 am - 1 pm	ASBA Certification Exam

Free 2-year STMA membership in honor of Leo Goertz

Funded by a grant from Pioneer Athletics through The SAFE Foundation

Do you have responsibilities on a sports field, but are not a member of STMA? Submit for a 2-year membership grant.

It's easy; just go to STMA.org, Programs and select Grants. The Leo Goertz Membership Grant will pop up and there is a simple form to fill out. Anyone who works on sports fields and has not been a member of STMA for five years is eligible. A STMA member can nominate the person or chapter member, a fellow employee or you can self-nominate.

You will only need to provide your contact information and the answer to this one question:

Why do you think this person would benefit from being an STMA member? Or, if self-nominated, What do you hope to gain by becoming an STMA member?

That's it. The form is due no later than October 15.

Become a member and enjoy all the benefits of membership:

- A monthly electronic newsletter that communicates association and industry information.
- Access to the Members Only section of STMA.org, which has a real-time membership directory and hundreds of technical educational resources that are specific to sports field management.
- Access to Michigan State's Turfgrass Information File, the green industry's greatest resource for up-to-date technical information, a $100 value.
- Ability to enter your field in the nationally recognized Field of the Year Awards Program.
- Opportunity to become a Certified Sports Field Manager (CSFM) to showcase your professionalism and to achieve Environmental Facility Certification for your sports field or complex.

Leo Goertz

- Save a significant cost on registration to STMA's annual conference and receive discounts to other organizations' education.
- Opportunity to participate in volunteer leadership positions.
- Opportunity to join one of STMA's affiliated chapters for a strong local network. (Each chapter sets its own local dues.)
- *SportsTurf* Magazine each month, a $40 value.
- The ability to apply for scholarships (students only).

Membership in STMA will help you expand your network and give you edge up on your career when you take advantage of the top educational resources that are included with your membership.

Have children in college pursuing a non-turf degree?

Apply for a Darian Daily Legacy Scholarship!

SAFE has many scholarships for those who are pursuing a degree in turfgrass science. It just added the Darian Daily Legacy scholarship in 2017. This scholarship is for a member's child in college or enrolling in college who is not seeking a degree in the turfgrass industry. A great feature of this scholarship – besides that it provides an award of $2500 – is that the STMA member applies for their child. No uncertainty about if your student completed the application! Two $2500 scholarships are available annually.

The STMA member must be a current member and must have been a member for 3 consecutive years. An unofficial transcript must accompany the application and the student will be judged on having a broad base of interests including extra-curricular and community involvement, volunteer activities and outside employment. The member will complete a short essay question: "What legacy do you want to leave to your child and how has your career helped define that?"

This scholarship honors the memory of the late Darian Daily, a very involved

Darian Daily

member in STMA who made family his top priority and passed away unexpectedly in 2016. To apply go to STMA.org, click on Programs, then Scholarship. The deadline to apply is October 15.

STMA Affiliated Chapters Contact Information

Sports Turf Managers Association of Arizona: www.azstma.org

Colorado Sports Turf Managers Association: www.cstma.org

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

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

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

Gateway Chapter Sports Turf Managers Association: www.gatewaystma.org

Georgia Sports Turf Managers Association: www.gstma.org

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

Illinois Chapter STMA: www.ILSTMA.org

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

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

Iowa Sports Turf Managers Association: www.iowaturfgrass.org

Kentucky Sports Turf Managers Association: www.kystma.org

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

Mid-Atlantic STMA: www.mastma.org

Michigan Sports Turf Managers Association (MiSTMA): www.mistma.org

Minnesota Park and Sports Turf Managers Association: www.mpstma.org

MO-KAN Sports Turf Managers Association: www.mokanstma.com

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

Sports Field Managers Associationof New Jersey: www.sfmanj.org

Sports Turf Managers of New York: www.stmony.org

North Carolina Chapter of STMA: www.ncsportsturf.org

Northern California STMA: www.norcalstma.org

Ohio Sports Turf Managers Association (OSTMA): www.ostma.org

Oklahoma Chapter STMA: 405-744-5729; Contact: Dr. Justin Moss okstma@gmail.com

Oregon STMA Chapter: www.oregonsportsturfmanagers.org oregonstma@gmail.com

Ozarks STMA: www.ozarksstma.org

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

Southern California Chapter: www.socalstma.com

South Carolina Chapter of STMA: www.scstma.org.

Tennessee Valley Sports Turf Managers Association (TVSTMA): www.tvstma.com

Texas Sports Turf Managers Association: www.txstma.org

Virginia Sports Turf Managers Association: www.vstma.org

Wisconsin Sports Turf Managers Association: www.wstma.org

Chapter Sponsors

Continued from page 50

spreaders. The students really enjoyed being timed as they walked with the fertilizer spreader, competing to get the best time.

The golf course conservation and nature walk opened up the opportunity to talk about the role a turf manager plays in environmental management. The students saw birds, turtles, a frog, deer, monarch butterfly caterpillars and different plants. This visit tied in nicely with a climatologist who discussed the effects of climate change on growing plants in Ohio.

"Cool tools" is a term used by First Green and we used it too. Students got to sit on equipment and watch it being used. They used the Clegg impact hammer, shear vane, TDR, ball roll and ball bounce equipment, infrared gun, stimpmeter, firmness meter, macrometer, and mowing height prism. All of them would say that their favorite thing was flying the drone.

The students really enjoyed the hands-on activities: painting a logo at Mapfre Stadium, raking bunkers at Muirfield Village Golf Club, fixing a home plate area, and cutting a cup on a golf green.

One of the week's highlights was making a putter (only $15 per putter kit). They used the putters they made for an outdoor putting competition and we gave trophies to the winners.

For fun, the students took part in a simulated putt-putt competition and enjoyed tie-dying their camp T-shirt. They toured Ohio Stadium and got to run down the tunnel like champions. I also learned quite quickly that we didn't need to schedule every second of every day because the students needed downtime as much as we did. After the heavily scheduled first day I made sure they had at least 30-40 minutes each day to play soccer, or 4-square, or just lay on the grass and chat. It felt good to give them a little freedom.

At the end of the week, the students and their parents gave us some great feedback. Not surprisingly, they really enjoyed things they actually got to DO and they didn't enjoy the things that meant sitting and listening for longer than 15 minutes. Even after all our thoughtful planning, we did still have some scenarios where the leader of the activity thought hands-on meant sit and listen.

Overall, it was fun, exhausting, noisy, engaging and very worthwhile. The goal was to introduce turfgrass science to 26 middle-schoolers and we accomplished that. And the key to getting the students to engage and have fun was to talk to them. It really was that simple.

Thank you to the Ohio Sports Turf Managers Association for supporting this camp with an outreach grant of $2,500. **/ST/**

Q&A *with* PAMELA SHERRATT

Sports Turf Extension Specialist

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

Or, send your question to Grady Miller at North Carolina State University, Box 7620, Raleigh, NC 27695-7620, or email grady_miller@ncsu.edu

Planting the love of turf early

When I was 16 (see photo, left), I embarked on a weeklong residential taster course at Myerscough College in England. The goal of the camp was to plant the seed that horticulture is a viable career. The week was spent doing hands-on STEM (science technology, engineering and math) activities like tractor driving, pruning, planting, and even welding. I loved it and knew that that I had found my people. I have recounted that experience to colleagues many times over the years and recently decided to do something about it. Thus, the Turfgrass Science STEM Camp at The Ohio State University was born!

Looking around to see what similar camps were available, I learned about First Green, who merged with Golf Course Superintendents Association of America (GCSAA) in 2018. First Green has been offering STEM camps on golf courses for 20 years. They offer free camps for students aged grades 5 and up and have impacted 15,000-plus students since they started. Their emphasis on "hands-on activities" as the central theme is crucial to the camps' success, since research shows that learners retain only 5% of material presented through lecture, 30% by demonstration, but as much as a 75% retention rate by doing something.

In July, we held a weeklong day camp for 26 middle school students. We chose middle school age because they are old enough to understand the basics of STEM and they are able to focus for longer periods of time than elementary school kids. Still, the attention span of the average middle school student is 10 to 12 minutes, so we knew the key to success was going to be engagement. In addition, we wanted to plant the seed about careers in turfgrass while they were young, and we felt that high school students might have already set career goals. I may change my mind on that as my kids get to high school and I understand the demographic a bit more.

Planning a camp of this nature took time and effort. By far, the most important aspect is to have a team of young people (camp counselors) that are professional, have great organizing skills, and are comfortable engaging with middle school-aged students. Conversely, it's important that the counselors can engage with the students without being over familiar. I was lucky to find counselors that matched the criteria and they helped with food donations, transportation, site visits, hands-on activities, parent communication tools, social media platforms, and student supervision.

Camp activities were as follows:

Students set up small experiments on Monday and gave 5-minute presentations on Friday. The experiments included: soil settlement testing, soil erosion control (thank you, Pinterest), ryegrass germination, and nitrogen and iron applications. They also performed light meter experiments.

Math was included wherever possible, such as measuring an irregular shape, measuring bases and height of pitcher's mound, and calibrating fertilizer

Continued on page 49

Scene from Sherratt's turf camp this summer, at Mapfre Stadium.

1 TORNADO.

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1 TEAM AGAINST THE CLOCK.

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