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SportsField

MANAGEMENT

September 2021

Vol. 37 No. 9

The Official Publication of the Sports Turf Managers Association

Sprinkler System Audits **20** | STMA Stars & Stripes **24**
Cultural Practices to Improve Traffic Tolerance **30** | Safety and Security **34**

Back-to-Back Wins

**Walsh Field at Pace Academy Riverview Sports Complex
earns Schools and Parks Football FOY for second year in a row**



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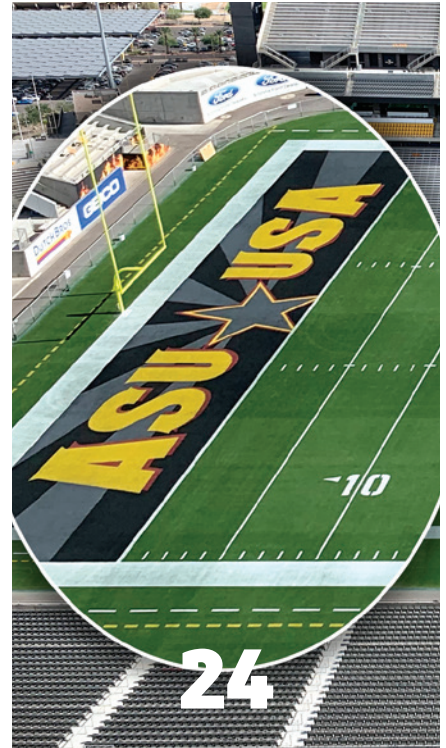
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Editor's Note



John Kmitta

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During the past year and a half, I have had some great phone and Zoom conversations with industry professionals. But after more than a year without travel, I am looking forward to getting back to in-person events this fall and winter. The opportunity to network face to face, learn from industry professionals, and see the latest products and equipment in person is invaluable. And there is a lot to look forward to.

Foremost is the 2022 STMA Conference and Exhibition in Savannah, Ga. (January 17-20), and STMA recently announced the plan for the General Session (Tuesday, January 18 from 8-9:30 a.m. ET). According to STMA, a panel of experts will discuss the labor shortages affecting the industry, including the following trends:

- Seasoned sports field managers are pursuing positions on the commercial side.
- Fewer young people are pursuing turfgrass science as a career path in college.
- Fewer interns are available to gain on-the-job experience.
- The pool of qualified job candidates is shrinking for employers trying to hire.

According to STMA, Moderator Keith Winter, head groundskeeper for the Fort Wayne TinCaps, will lead the discussion, and will add insight from his own experiences.

Dr. John Sorochan, distinguished professor at University of Tennessee, will address the decreasing rate of enrollment in turfgrass science programs at the collegiate level and some strategies to attract young people to the field. Abby McNeal, CSFM, CPRP, CABI, field superintendent, city wide operations for Denver Parks and Recreation, will discuss unique ways she has been balancing the labor shortage. Andrew Miller, program director for Brentsville Turfgrass Management Program, will discuss his recruitment and retention strategies at the high school level. And Tyler Bloom, owner of Tyler Bloom Consulting, will discuss opportunities available in the industry that provide training to prepare individuals to enter the sports field management profession.

In addition to the STMA Conference, I will also be at GIE+EXPO in Louisville this October, which, in addition to the trade show and outdoor demo area, will also feature NALP's LANDSCAPES conference and the 2021 PGMS School of Grounds Management Annual Conference.

Other upcoming events of interest include NCS4's 12th Annual National Sports Safety and Security Conference & Exhibition (page 34) and the Synthetic Turf Council 2021 Annual Membership Meeting (page 42). **SFM**

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The Official Publication Of The Sports Turf Managers Association

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

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

Postmaster: Send address changes to *SportsField Management*, PO Box 2123, Skokie, IL 60076-7823. For subscription information and requests, call Subscription Services at (763) 383-4492. Subscription rates: 1 year, \$40 US & Poss.; 2 years, \$65 US & Poss.; 1 year, \$65 Canada/Foreign Surface, 1 year, \$130 Airmail. All subscriptions are payable in advance in US funds.

Send payments to *SportsField Management*, PO Box 2123, Skokie, IL 60076-7823. Phone: (847) 763-9565. Fax: (847) 763-9569. Single copies or back issues, \$8 each US/Canada; \$12 Foreign. Periodicals postage paid at Port Jervis, NY and additional mailing offices. COPYRIGHT 2020, *SportsField Management*. Material may not be reproduced or photocopied in any form without the written permission of the publisher.

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Howdy STMA members!

As I write this, I just returned from Iowa, where I had the privilege of working the MLB at Field of Dreams game. As someone who was born and raised in Iowa, I've always had an inborn fondness for the *Field of Dreams* movie and the positive light that it put on the state in which I grew up (cue the "Is this Heaven? No, it's Iowa" reference). Combine that with my background in athletic field maintenance (specifically baseball), and the movie really is a combination of things I'm passionate about.

For three days, I got to work with a fantastic group of individuals whose sole purpose was to put on a historic event that resulted in the first MLB regular season game to be played in the state of Iowa. While the game was pretty spectacular in its own right (it ended with a walk off home run), I found myself consumed with the pageantry and atmosphere of the event even more so than the game. Things such as hosting a Little League game on the movie site, Kevin Costner having a catch with his son, the players entering the field through rows of corn in the outfield, and the oasis of a pristine baseball field surrounded by a sea of corn. All of these things will be etched into my memory for the rest of my life!

Former University of Tennessee Director of Sports Surfaces



Nick McKenna, CSFM

STMA President

nmckenna@athletics.tamu.edu

and Past President of the STMA, Bob Campbell, used to say that, as sports field managers, we are in the business of creating memories for people. I always understood what he meant by that statement, but it wasn't until this event that I truly appreciated the meaning behind it. From the professional athletes to the Little League players to the father/son combination that attended their first game together, they will all have lifelong memories that were created at the Field of Dreams game.

It's easy to get caught up in the everyday grind and stress of our jobs, but my challenge to all of you is this — focus on the positives, the opportunities and the memories that we are all helping to create on a daily basis.

Poet Arthur O'Shaughnessy summarized this the best when he stated: "We are the music makers, And we are the dreamers of dreams." STMA members, keep making music, keep dreaming dreams, and, above all, keep helping make memories! **SFM**

Nick McKenna, CSFM

Field of the Year Showcases Expertise

The Field of the Year Program was developed to feature the excellent field management practices of STMA members in three categories: Professional stadiums, Schools/Parks, and Colleges/Universities. Since the program began in 1988, STMA has presented nearly 300 Field of the Year awards to top field managers. The program awards single fields in the sports of baseball, softball, soccer, football and sporting grounds (which recognizes non-mainstream sports, such as rugby and lacrosse).

The application covers playability and appearance of the playing surface; innovative solutions employed; effective use of budget; the development and implementation of a comprehensive, sound agronomic program; field management challenges and more. Up to 30 photographs taken throughout the year are also required to be uploaded in the application. The application is completely online, and is hosted through a well-known awards software program, ReviewR. It is easy to fill out and can be saved for continued access as the application is finalized.

The 2020 program revealed that sports field managers faced challenges they never experienced before — many were due to a reduced ability to maintain the surfaces — caused by a limited staff, little to no access, and other restrictions. Factors affecting field management change every year, and those who enter their field two years in a row are challenged to thoroughly describe what has changed from one year to the next.

Daniel Prince won in 2019 and 2020 for Walsh Football Field at the Pace Academy Riverview Sports Complex in the Schools/Parks category. According to Prince, he had different challenges in 2020 with staffing and events. “We had to operate on a skeleton crew that meant only one person on site per day,” said Prince. “During this time, we were tasked with hosting private individual workouts for NFL players, Olympic runners, and a socially distanced graduation ceremony.”

The STMA Awards Committee reviews the application format and criteria annually, and adjusts it as necessary. There was one change to this year’s program: the PCI is again required for submittal. It has been required since 2010, but was placed on hiatus for 2020 due to field access limitations caused by the pandemic. The committee, which is made up of a wide range of members, independently

judges each application based on nine criteria. ReviewR automatically calculates the scoring. The judges have an SOP in place to follow to recuse themselves if they know a particular applicant.

Scott Thompson, CSFM, chairs this year’s committee. Members of the committee include Jaxson Bailey, CSFM; Russ Baucom, CSFM; Andrew Beggs, CSFM; Greg Brodd; Grant Davisson; Michael Flowers, CSFM; Ryan Hills; Glenn Lucas; Madison Manos; Carter Metclaf; Trevor Odders, CSFM; Ryan Storey, CSFM; George Trivett, CSFM; Edgar Vallejo; Rob Walls; Christopher Webb, CSFM; and Tim Youngberg.

Those who attain a Field of the Year award receive complimentary STMA Conference registration, three nights hotel, signature clothing, and they accept their award on stage during the annual Awards Banquet held during the STMA Conference and Exhibition. That event will be held Jan. 20, 2022, in Savannah, Ga.

Join your peers who have won a Field of the Year award, and validate your expertise to your community, employer and peers. You can’t win unless you submit!

The Field of the Year application is available at [STMA.org](https://stma.org) under the “Programs” tab. The deadline to submit is Oct. 15.

U.S. Sod Checkoff is Striving to “Bring Grass to Life”

Sod producers in the United States have been discussing the benefits of creating a sod checkoff since 1996, but only in recent years have there been more intentional discussions around how the industry can begin that process. Agricultural research and promotion programs, or “checkoff programs,” are industry-funded initiatives that improve the market position of a commodity by expanding markets, increasing demand, conducting market and scientific research, and promoting industry initiatives and activities. There are currently more than 20 USDA Research and Promotion programs on everything from beef, pork, eggs and dairy to specialty crops such as mangos, watermelons, Christmas trees, blueberries and others.



The proposed U.S. Sod Checkoff program would be the newest addition, and would “Bring Grass to Life” by telling the story of natural grass and the many benefits it brings to parks, sports fields, golf courses, lawns and other urban greenspaces. In this way, it would do exactly what checkoffs are designed to do for all agricultural commodities, which is to increase consumer demand, raise awareness, fund important scientific and market research, and educate policy makers and the public on the value of natural grass.

Dr. Casey Reynolds, executive director of Turfgrass Producers International (TPI), has been a powerful voice behind the effort, rallying the industry around the many benefits of an industrywide checkoff.

“The sod checkoff will benefit every aspect of the green industry by increasing the visibility and value of natural grass,” said Reynolds. “It can do this by not only driving preference for natural grass sod with both consumers and customers, but also by uniting the U.S. sod industry to protect and even grow market share in the face of threats from misinformation, building codes that seek to reduce our market, grass bans, and products that compete for our space.”

Just a snapshot of the many things you can do by uniting an industry through a checkoff include:

- Funding research and marketing efforts to drive consumer preference for natural grass in sports fields, urban greenspace, lawns and other sites.
- Funding market and scientific research to better understand consumers, improve farming techniques, create new products and technologies, document the many ecosystem services of urban greenspace, and more.

- Educate regulators and lawmakers on the value of keeping natural grass a key part of urban ecosystems in parks, sports fields, golf courses, lawns and other areas.

The proposed assessment rate of 1/10 of one penny per square foot of sod sold in the United States places the current estimate of the U.S. Sod Checkoff’s budget at approximately \$14 million annually. If passed by a

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majority vote of U.S. sod farmers, the program will be implemented, managed and governed by a 13-member board of U.S. sod producers who are all nominated by fellow sod producers. This board would be comprised of four sod farmers from northern states, five from southern states, and four from transition zone states to ensure uniform representation among the industry. They would invest checkoff dollars in initiatives such as national and consumer marketing collateral, agronomic and consumer research, local promotional or marketing materials for growers, customer and regulator education and outreach, or any other item that falls within the scope of Research and Promotion programs.

“Many of the leaders in our industry are passionate sod producers who want to preserve the legacy of their farms by protecting and growing their markets for future generations,” said Reynolds. “We have a great product in natural grass that provides countless benefits for athletes, kids and the environment in urban ecosystems worldwide, yet we know there are those who still need to be educated on our industry. In just the last 9 months, I have personally been involved in fighting legislative bills in three separate states that in one way or another are all designed to make it illegal to use natural grass.”

A U.S. Sod Checkoff program could give our industry the voice and resources it needs to address these and other challenges head on. If passed, it would quite literally create the single largest recurring source of natural grass research funds in the world that could fund scientific and academic research on a scale we have yet to see. Not to stop there, it would also create the single largest source of marketing and promotion efforts for natural grass so that

we could reach parents, school administrators, city council men and women, and others who decide on the use of sports fields, parks, and other urban greenspace. This is all possible through the power and ability of a Research and Promotion program to unite U.S. sod farmers.

What could all this mean for sports field managers? “Well, we’d like to think that what’s good for natural grass is good for those who manage it,” said Reynolds. “If the checkoff can invest funds in research and marketing to show parents, school boards, city officials, legislators and others the value in their grass parks and sports fields, then they may be more willing to invest in those areas as well. By protecting and growing the market for natural grass, you also protect and grow the market for sports field managers and other associated industries.”

At the end of the day, natural grass parks and those who manage them provide much more than just a place to play. They provide countless environmental benefits, personal and community wellbeing, economic value and more. Our industry has a great story to tell, but until now we have lacked the channel to effectively tell it. A U.S. Sod Checkoff could not only explore and write the story of our industry through research and marketing, but it could also be the narrator that tells it along the way.

As of September 2021, a draft proposal that outlines the key points needed for an efficient, successful checkoff program has been written and submitted to the USDA for review. Once approved, it will be published in the U.S. Federal Register for public viewing and commentary prior to a vote of U.S. sod farmers on its passage in the spring of 2022.

If you are interested in learning more about the U.S. Sod Checkoff, visit www.sodcheckoff.org. **SFM**



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WALSH FIELD AT PACE ACADEMY RIVERVIEW SPORTS COMPLEX

This year has challenged our crew immensely. We were left, like so many others in the sport turf industry, with many questions and concerns about when events would resume after COVID-19 shut down the country. However, we took it upon ourselves to start preparing Walsh Field to be the best it could be for whenever that time came. Lucky for us, it came sooner rather than later.

We were extremely grateful when we learned that Pace Academy had deemed our Facilities and Grounds department essential workers. This meant our jobs were safe and they felt the need for us to continue to strive to do our best for whenever our facilities and Walsh Field were called upon.

That came in many forms over the spring and summer. One such way was a group of NFL players needed a private field and open area. Queue Walsh Field. Our crew spent five weeks preparing and painting Walsh Field for those professional player workouts.

Just as we had answered the call for those athletes, we answered the call from our own. After the GHSA deemed it safe enough for students to return to practice, we had Walsh and the facilities ready for them as well. They spent two weeks at Walsh for their summer workouts, which are normally held at the school's location, not Riverview.

Along with all the workouts and training sessions we were lucky enough to hold at Walsh, we were also able to host the class of 2020's high school graduation. This was another first for Pace, as they normally have their graduation ceremony indoors. However, with the crisis we faced, the open air and spacious room of Walsh Field seemed to be the only logical solution.

After all those events and training sessions during the summer, it was finally time to gear up for football games. We hosted nine games in nine weeks, having only one week without a game. We also dealt with less-than-ideal weather conditions for the majority of those games, with hurricane Sally dumping more than 4 inches of rain in less than 36 hours. With the crew's hard work, Walsh Field's playability never wavered.

Even with most of the country being out of commission, our crew was hard at work making sure Walsh Field was not only accessible, but one of the top playing surfaces around.

— Daniel Prince, sports turf manager

The Field of the Year Awards program is made possible by the support of sponsors
Carolina Green Corp., Precision Laboratories, and John Deere.



FIELD OF THE YEAR SCHOOLS AND PARKS FOOTBALL

SportsField Management (SFM):

Congratulations on the winning field. This is back-to-back wins for Walsh Field. What are you most proud of with this win, and what sets this win apart from last year's FOY win?

PRINCE: I'm extremely proud of the work Larry Fricke and I were able to accomplish with such craziness going on in the world. We never really had a break in the action this year since Walsh Field and the whole Riverview Sports Complex

was a perfect site for isolated and secluded workouts for professional athletes to take advantage of, and for our own student-athletes after restrictions were lifted. So, just being recognized with the FOY award this year is extremely gratifying.



Category of submission: Schools and Parks Football

Field manager: Daniel Prince

Title: Riverview Facilities Sports Turf Manager

Education: Bachelor's degree

Field of Study: Landscape Architecture

Experience: Bachelor's degree in Landscape Architecture from the University of Georgia. Foreman at the University of Georgia (Jack Turner Sports Complex). Field manager and later assistant sports turf

manager at Georgia Tech. Currently Pace Academy's Riverview Sports Complex Facilities Manager.

Full-time staff: Larry Fricke

Original construction: 2014

Turfgrass: Certified 419 bermudagrass

Rootzone: Sand

Drainage System: Sand cap 4" perf. with 12" collector

Previous FOY win: 2019

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SFM: I know we have covered your background in the past, but for those readers who are unaware, please tell us a bit about yourself and your career path in sports field management.

PRINCE: I graduated from the University of Georgia with a Bachelor's degree in Landscape Architecture in 2014. While taking classes, I worked for the UGA Athletic Association (UGAAA) for four years as a student worker, mostly out at the Jack Turner Women's Soccer and Softball complex. After I graduated, I worked as a foreman at UGAAA for one year then moved to Atlanta where I started working for Georgia Tech's Athletic Association. I worked there for three years, and was a part of the crew that won Field of the Year for Bobby Dodd Stadium and took care of the pitch for Atlanta United's inaugural season. I was then offered the job at

Pace Academy, taking care of their sports complex and athletic fields, and I've been here for more than three years now.

SFM: 2020 was a year unlike any other. Please walk us through what the past year was like for you, how you were impacted by the pandemic, and how you approached the challenges you faced?

PRINCE: When everything began to shut down, we were put on a "skeleton" schedule for about three weeks. That meant that only one person was out at Riverview per day Monday through Saturday. With such a large facility, and the amount of work that needed to be done daily, we had to prioritize what we felt was necessary upkeep and what could be put on the back burner. Luckily, after those three weeks we were back

JOHN MASCARO'S PHOTO QUIZ

CAN YOU IDENTIFY THIS TURFGRASS PROBLEM?

PROBLEM:

Brown circles on turf and brown line crossing field

TURFGRASS AREA:

Professional football stadium

LOCATION:

Miami Gardens, Fla.

TURFGRASS VARIETY:

419 bermudagrass

Answer on page 33

John Mascaro is president of Turf-Tec International



Tiger Stadium

Baton Rouge, LA

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"Celebration lives up to the demands put on it from our football program."

– Mark Lee, LSU Assistant Director of Athletic Facilities & Grounds

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to our normal two-man crew, and ramping up our field work to start preparing for all the summer activities that took place on Walsh Field.

SFM: Beyond COVID-19-related challenges, were there other challenges you faced with Walsh Field this past year, and, if so, how did you approach those challenges?

PRINCE: Yes, 2020 was a first for a lot of things out at Walsh Field. We hosted small NFL group workouts for six weeks during the summer, had Pace's graduation at the stadium, and began hosting girl's flag football games in late fall/early winter. With us not really having an offseason during the summer, and very little time between winter and spring sports, we had to

find any window we could to do our field maintenance work. Whether we were staying late during the week or coming in on the weekends, our crew was motivated to get it done.

SFM: With back-to-back FOY wins, where do you go from here? What's next?

PRINCE: I think with our crew being fortunate enough to win this award in back-to-back years, our schedule has been flooded with external events and extra games. So the only thing for us to do is continue grinding out the best, safest product we can for these student-athletes, and prove our natural fields can handle whatever our administrators throw at them. **SFM**



Judge's Comments

“When I reviewed all of the facility information and viewed the images, I was impressed that the amount of work required was being met with only two people. That is dedication.”

— Steve E. Peeler, CSFM, CSFB, ISSA, director of horticulture and turfgrass management,
CVCC Environmental Life Science

Editor's Note: A panel of judges independently scored Field of the Year entries based on playability, appearance of surfaces, utilization of innovative solutions, effective use of budget and implementation of a comprehensive agronomic program.

Sprinkler System Audits

By John C. Fech

Auditing. Whether it is a bank audit, a tax audit or a sprinkler system audit, the premise is the same: something is not exactly the way it should be. As such, it's understood that nobody expects perfection in any of these systems, but it's still important to strive for it. In the world of sports fields, the assumption is that your sprinkler system is broken; the question is just how badly?

The "just how badly" question is best answered by asking other questions:

- How many components are not functioning well...or at all?
- Are there dark green sections of turf next to brown ones?
- Is it 60%, 70% or 80% efficient?
- How uniform is the distribution of water?

These questions make some sports field managers grimace and others to shrug their shoulders as if to say, "I don't know, I've never checked into it."

PERCENTAGES VS. GALLONS

Percentages of efficiency are one thing, but gallons saved are HUGE! If a significant percentage increase in overall efficiency is achieved as a result of an audit and subsequent repairs, and that improvement is touted to a field stakeholder or decision maker, the response is likely to be "that's nice" or "good for you." However, if the percentage increase is followed by a corresponding reduction in water usage, as well as a cost savings for less applied water, then the response is likely to be more along the lines of "Holy Cow! That's amazing! Keep up the good work!"

In order to achieve the second response, start by finding out how



*Collection cylinders and tuna cans work equally as well in the auditing process
All photos by John C. Fech*

many gallons it takes to water the field, then how much can be saved over a year's time by auditing, repairing and rechecking water usage. Considering the total square footage, the calculation could be in the millions of gallons.

BEYOND COST SAVINGS

Sure, money talks; but it's not only about money. There are several other considerations that are compromised with an inefficient system, including increased disease potential, pest control failures and even sink holes.

IRRIGATING FOR THE BROWN SPOTS

Once you do the deep dive that this article is calling for, you'll find out just how out of whack the system is. Certainly, older systems with worn parts and old technology can be improved,

but even new parts "right out of the box" can be significantly flawed. This begs the question, "How did the efficiency get to be so bad to begin with?" The answer is that we tend to irrigate for the brown spots. It is a basic human tendency to run a system until all the turf areas respond by turning from brown to green.

Under this routine, the brown spots will eventually turn green. However, in so doing, the areas that are currently receiving the correct amount of water or excessive water will end up receiving two to three times as much water as they need, resulting in a waste of water, root rot and unnecessary expense.

PEST CONTROL INTERACTIONS

Not only is an inefficient system problematic because it's not keep-



Checking water pressure with a pitot tube



Flagging each head is an initial action in Step 1



When no obvious flaws are evident, inefficiency may be indicated in Step 2



Taking readings after Step 2

ing the roots evenly moist, but it will also cause a problem with the control of turf insects and diseases. For example, many turf pest control products such as imidacloprid and azoxystrobin need to be watered off of the turfgrass blades and into the upper soil layer to be effective. If the sprinkler system delivers half as much as needed, or three times as much as needed, the product may not be adequately moved into the root zone —

being held tightly by the thatch or possibly moved beyond the active root zone by excessive amounts being applied.

SOMETIMES IT'S OBVIOUS; SOMETIMES NOT

In some cases, sprinkler system problems are easy to spot. Leaking heads and valves produce greener turf than surrounding areas, while low pressure output tends to create symptoms of a doughnut pattern.

Soggy patches that are not supposed to be soggy are also obvious.

Some system flaws are not that evident — at least at first. These include clogged nozzles and excessive pressure that produce symptoms that can be confused with other turf maladies and causes such as overly thick thatch, soil compaction, uneven fertilizer application and inadequate seeding rates. The only method to determine if the sprinkler system is causing problems is to audit.

*Catch cans in place*

WHAT'S BROKEN?

There are a lot of individual parts in a sprinkler system, each with the potential to work inadequately for various reasons. Here's a quick run-down of some of the parts that could be in need of repair:

- **Pressure** (too high or too low). As mentioned, high and low pressure can cause big problems. A pitot gauge can be placed in the water stream to check for the current pressure amount.

- **Heads that turn, but don't follow the pre-set pattern.** When misaligned, quarter pattern heads can turn into 360 or 180 patterns. They usually just need to be replaced or adjusted.

- **Heads that don't turn at all.** Heads often become sufficiently worn that they simply stop turning. When this occurs, a lot of water is delivered to one part of the spray pattern and not much in the rest.

- **Geysers.** When the nozzle is completely missing due to vandalism or old age, an enormous amount of water is blown straight into the air, resulting in a lack of adequate coverage. Needless to say, a great percentage of the applied is wasted when geysers occur.

- **Bent risers.** When risers are installed properly, they can withstand quite a bit of abuse from players and field maintenance equipment. However, when they are past their prime operating efficiency or installed a bit on the high side, they can be easily damaged. Bent risers deliver twice as much water on one side of the spray pattern as the other, a result of not delivering water at the correct angle.

- **Low risers.** When installed too deeply in the soil or the water pressure is too low, it's common for risers to fail to rise above the turf canopy. When this happens, they spray water into the grass blades rather than above them.

- **Leaks.** When there is a crack or leak in the piping, water seeps out into the surrounding soil, causing it to be wetter than normal. The initial response is healthy, dark-green turf as water stress is being avoided. Over time, however, the result is root rot, as roots need oxygen to thrive.

- **Clogged orifices.** Sand, grit and other debris can get stuck in the emitters or orifices, where they can make the opening smaller, and significantly distort the spray pattern. Clogs are usually only evident when audit results are reviewed.

TWO STEP AND THREE STEP

An audit can be as simple or as complex as you want to make it, or need it to be. So, what's the basic procedure? Generally, it can be thought of as a two- or three-step process, depending on how you count or how you look at the overall procedure.

The first action is to turn the system on and watch it run, focusing only on the appearance of the water being applied. This is extremely valuable and visual, and is probably the most valuable part of the audit. The initial phase involves making repairs for obvious needs and gross observations that really stand out. The second phase gets to the real heart of the matter, involving measurement of water output and adjustments based on the outcome, while the third is a fine-tuning of the system.

It's prudent to get started with step 1 by locating the part of the field(s) that is most concerning, and running the zones that cover the area for a short time — 10 minutes or so (long enough to make the observations). In many cases, two to three zones may contribute to a problematic area. While they are running, make a quick sketch of the field and write in general notes such as "east head near 10-yard line



Making repairs after measurements are taken

not turning,” or “geyser on west sideline.” These problems can be taken care of right away before proceeding with the rest of the audit.

Step 2 is more involved, and takes advantage of the opportunity to determine how effective the first round of repairs were. Begin this step by setting out collection cylinders in the irrigation spray pattern of each head, using the general placement technique of locating one cylinder three feet away from a head and one halfway between heads. Continue placing them until all turf areas are covered. Collection devices can be a bit pricey, but are well worth it. Field managers on a budget can use cat food or tuna cans, which can work just as well as official auditing devices. The dedicated collection cylinders are a bit easier to use, as they have pre-marked water levels printed right on the device (much like a Pyrex measuring cup).

Once all of the collection devices are in place, run the system long enough to collect about 10-12mm of water. The key intent here is to be able to compare the amounts collected for an initial estimate of evenness of application (a.k.a., efficiency). Simple percentage calculations and averages

will suffice. At this point, looking for large differences is also instructive. For example, if catch can A has 15mm of water in it and catch can B has 5, then the deviation is noteworthy and an indicator of inefficiency. The average of 10 in this case is not really indicative of the uniformity of application. Noting the variance is informative, indicating something is broken and needs to be fixed.

Step 3 is best described as a process or protocol: run, then measure, then fix and adjust. The protocol should be continued until at least 80% efficiency is achieved. As you describe this to staff members and administrators, it's helpful to remember the goal and benefits; the goal is for all turfgrass areas to receive the same amount of water, and the benefits (cost savings, healthier turfgrass and increased environmental stewardship) serve as outcomes that are worthy of promotional value for your facility and the sports field management industry in general.

AUDIT FREQUENTLY

Although it may not be an “in your face” issue such as Pythium root dysfunction or white grubs, auditing a sprinkler system should be an

integral part of sports field maintenance. Once a couple rounds of step 3 actions have been implemented, fine-tuning can take place — such as trying 10% reduction in runtime. The premise with this is perhaps the system can be run for a tad shorter time and still achieve the goal of keeping the roots moist. For example, if a zone is set to run for 30 minutes, can it be shortened to 27 minutes — a 10% reduction — and achieve the same results? Considering the price of water in some localities, it is worth the experiment. The prescribed frequency of an audit procedure is field sensitive, but scheduling each field for once per season would be ideal; once a year is considered a minimum. **SFM**

John C. Fech is a horticulturist with the University of Nebraska-Lincoln and certified arborist with the International Society of Arboriculture. The author of two books and more than 400 popular and trade journal articles, he focuses his time on teaching effective landscape maintenance techniques, water conservation, diagnosing turf and ornamental problems, and encouraging effective bilingual communication in the green industry.

STMA Stars & Stripes Contest Winner Announced



Stars & Stripes Winner: Sun Devils Salute to Service

Congratulations to Josh Lenz for being voted as the winner of STMA's Fifth Annual "Stars & Stripes" Contest. Lenz is the assistant manager of athletic grounds for Arizona State University. With his "Sun Devils Salute to Service" field design at Sun Devil Stadium, he won a complimentary pass to the 2022 STMA Annual Conference in Savannah, Ga.

With the Stars and Stripes contest not being held last year due to the pandemic, STMA was excited

to bring it back this year. Entries received more than 2,200 votes, with Lenz's design gaining more than 800 votes.

Lenz graduated from Iowa State with his Masters of Science in Horticulture and spent two years working full-time at the University of Colorado in Boulder. He joined the team at Arizona State in 2018 and is responsible for overseeing the operations in and around Sun Devil Stadium.

"It was a fun event that I've had my eyes on the past couple years,

and it was an honor to finally be a part of," said Lenz. "Even though I created the design, it took a crew of us to execute the job."

Lenz added that Brian Johnson, manager of athletic grounds for Arizona State Sun Devils, also deserves credit for the winning design.

Designs from the Lynchburg Hillcats and Wichita Wind Surge finished second and third (respectively). The following are photos from those and other nominated designs.



Lynchburg Hillcats



Wichita Wind Surge



St. Paul Saints



Aurora, Ohio



Atlee High School



"Bluegrass Diamonds" design, Philadelphia Union



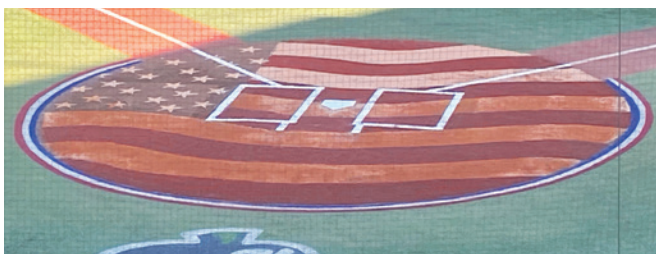
Wesleyan School, Peachtree Corners, Ga.



Mike Hebrard



Hickory Crawdads



Hillsboro Hops



Winston-Salem Dash



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NEWSTRIPE DIRT MEDIC INFIELD DRAG & GROOMER

Newstripe's Dirt Medic infield drag & groomer is specifically designed for use with garden tractors, light utility vehicles and ATVs to fill and level Little League to high school infields. With the durability of larger units, the Dirt Medic infield drag & groomer weighs only 200



pounds, and has a 4-foot-wide grooming path with 10-inch pneumatic wheels for easy transport. A single hand crank adjusts both the angle and depth of the harrow teeth. Proudly made in the USA and backed by an 18-month warranty.



REDEXIM TURF TIDY

The Turf Tidy is a versatile sweeping machine, allowing for dethatching, verticutting, sweeping or flail cutting. The Turf Tidy's fully floating head follows the ground contours, ensuring accurate cutting and excellent pickup. Wet and dry leaves, pine needles, sweet gum tree balls and even cores are quickly and

easily cleaned up with its 71-inch working width. The high-lift hopper can easily be emptied into a trailer or dumpster.



TORO SAND PRO 5040

With an 18-horsepower engine and hydraulic power steering, the Toro Sand Pro 5040 infield groomer offers the perfect combination of precision and power. The Quick Attach System (QAS) for front, mid and rear attachments allows for under-a-minute attachment changes. It can be outfitted with 20 productive attachments, including the Flex Blade that raises and lowers hydraulically. Each attachment was specifically designed to take the operator influence out of the equation for high performance and a consistent surface finish.

TURF PRIDE SWEEP-RITE LAWN SWEEPER

Turf Pride LLC has begun production of commercial lawn sweepers. Sweep-Rite is a robust tow-behind sweeper. Sweep-Rite is an ideal sweeper for synthetic turf maintenance. Options include three gang hitch, magnet, brush and selection of solid or mesh bottom. Sweep-Rite can also handle cleanup of leaves, debris and grass clippings. Replacement parts are now available for Suburbanite and Estate Master, that were manufactured by Parker and Gravelly. (Note: OEM names and models are used



for descriptive purposes only. Turf Pride claims no association with them.)



TERRA CLEAN 100 BY WIEDENMANN

The Terra Clean 100 ground-driven sweeper by Wiedenmann can offer many solutions for artificial turf maintenance. The rotary brush of the Terra Clean 100 brings debris and some crumb rubber or infill onto a vibrating screen that separates the debris from the crumb rubber. The crumb rubber is redistributed back onto the field. Debris (rocks, jewelry, sunflower seeds, metal objects, etc.) is collected in an easily removable hopper. This machine can be used either indoors or outdoors with just about any type of tow vehicle. Optional equipment includes rake fingers, trailing brush, and a towable magnet. Wiedenmann makes a full line of sweepers, verticutters, fraise/flail mowers, groomers, brushes, rakes, spikers, blowers, and aerifiers for turf maintenance. **SFM**

Cultural Practices to Improve Traffic Tolerance

By Ben Pease, Ph.D.

Athletic field traffic management. This topic can cause an argument faster than politics at Thanksgiving. But it is the focus of sports field management at all levels. The playability (traffic tolerance) and aesthetics (traffic recovery) are likely factors in every turf management decision, and have become more important as interest in athlete and field safety increases.

Present-day turfgrass managers are pushing turfgrass stands to perform at higher standards — and for longer periods — than previously thought possible, due to turf genetic improvements, advancements in turf culture technology, and pressure from end users for “better” conditions. Because of these demands, turfgrass stress tolerance research regarding heat, drought or salinity stress has increased during the past two decades. This is not the case with traffic or wear stress. Often there are minimal changes a turfgrass manager can implement to alter the type, volume or pattern of traffic stress — aside from a complete ban of traffic. For this reason, traffic or wear stress must be tolerated by the turfgrass and planned for by the turfgrass manager.

Based on current understanding, improving traffic tolerance is mostly a function of turfgrass species and cultivar selection — often only addressed during a sports field renovation. If renovation is not an option, improving traffic tolerance is mostly a function of regulating traffic frequency or severity, and adopting ideal cultural practices. Because traffic regulation is often not a popular option when proposed to athletic coaches, turfgrass selection and cultural practices are the primary means of mitigating traffic-induced stress.



Use sand compatible with the root zone and stick to a schedule to avoid creating layers in the soil profile. Photo courtesy of Nick Christians, Ph.D.

Let's look at what the research says by various cultural practice categories, and determine how that relates to guidelines you can follow to best prepare your fields for traffic events.

ROOTZONE CHARACTERISTICS AND AERATION

Traffic stress is exacerbated under compacted soil conditions. Fine-textured soils are more prone to compaction, resulting in less recuperative potential due to already weakened and thinned turf plants. Regardless of rootzone composition, athletic events will result in soil compaction, especially if soil moisture content is higher than ideal. Because sand provides good drainage and does not compact, it is often preferred for heavily trafficked sites. It has been shown that soil type affects percent cover

of trafficked athletic fields. Hybrid bermudagrass maintained higher percent turf cover for a longer period when grown on a USGA sand field compared to a silt loam field.

Overall, a sand-based field will perform better than a native soil field, but, in both situations, having adequate drainage and following a strict aeration schedule will help turf withstand traffic damage. For cool-season fields, hollow-tine aeration is best performed in the spring, and solid-tine aeration during the summer and fall months when fields are in heavy use. For warm-season fields, hollow-tine aeration should not occur until the turf has initiated spring growth.

TOPDRESSING

Sand topdressing, in conjunction with nitrogen fertility, has been shown



Ideal leaf tensile strength is achieved through proper irrigation. Photo by Ben Pease, Ph.D.

to improve the playing quality and percent cover of perennial ryegrass (PR) under traffic stress. Frequent sand topdressing and aeration have been recommended to maintain acceptable playing conditions for high-traffic athletic fields. For example, Kentucky bluegrass (KBG) has higher plant density and rooting under traffic when sand topdressed, with fall shoot density and surface shear strength of KBG under traffic increased by summer topdressing applications. The best advice when using sand topdressing is be consistent. Use sand compatible with the root zone, and stick to a schedule to avoid creating layers in the soil profile, which could hinder drainage and root growth, thus making the field less traffic tolerant.

Crumb rubber topdressing has also been shown to increase traffic and wear

tolerance in a KBG and PR mix when applied at rates of at 700 lbs. per 1,000 ft², and has been shown to be more effective than sand for increasing trafficked KBG percent cover. In the transition zone, turfgrass wear tolerance of both cool- and warm-season turfgrasses was improved by crumb rubber topdressing. Bermudagrass traffic tolerance is improved by topdressing crumb rubber at depths of 0.25-0.75 inches. Topdressing with crumb rubber could reduce abrasive stress of sand topdressing, but long-term effects on the rootzone have not been addressed.

FERTILITY AND IRRIGATION

Traffic tolerance is often correlated to leaf tensile strength or leaf density, although the correlation changes by species. The same concept is applicable for leaf water content, total

non-structural carbohydrates, and leaf strength. In the case of PR, most traffic-tolerant cultivars have fine leaf texture, lower total cell wall content, and lower lignin content. Phenotypic classifications of KBG have been compared, finding that Compact-Midnight and Julia types were best performers under high traffic amounts.

Ideal leaf/plant density is achieved through proper fertility. While the exact amounts vary by species and location, guidelines are available. Cool-season fields need 4.5-5.5 lbs. of N per 1,000 ft² per year, while warm-season fields need 5.0-7.0 lbs. of N per 1,000 ft² depending if they are overseeded for winter use. Trafficked athletic field turfgrass will not recover from traffic damage without additional nitrogen fertilization; and a simple lack of nitrogen is

usually the cause of poor-performing athletic fields. Avoid excessive early spring N fertilization, and remember that late fall N fertilization is sport dependent. Football fields will require late-season feeding while softball or baseball fields may not, due to their reduced use in the fall months. When overseeding, be sure to apply a phosphorus fertilizer if allowed in your location. Potassium fertilization is also important because of its role in stress tolerance. Conduct a soil test to measure pH, and add iron or magnesium fertility if pH is excessively high or low, respectively. No matter the exact fertility needs, a combination of slow-release and quick-release N sources is the best approach. Spoon feeding is also a recommended practice to boost traffic stress recovery, especially on sand-based fields. If improving cation exchange capacity or soil structure is a concern, consider utilizing a fertilizer product with a humate component.

Ideal leaf tensile strength is achieved through proper irrigation. Water is needed for growth, and without irrigation the turf is more likely to suffer traffic injury; recovery after traffic will also be minimal. Amounts vary greatly due to region and seasonal weather. It is also worth mentioning that field safety is improved through irrigation by reducing soil surface hardness and allowing the turf to function as a cushioning surface for athlete falls.

MOWING

Mowing places physical and physiological stress on the turfgrass — much like that of traffic. On creeping bentgrass, activity of reactive oxygen species scavenging enzymes is reduced by mowing and double mowing. This suggests that excessive mowing frequency should be avoided if possible, while of course observing the 1/3 rule. While mowing height is often determined by the game requirements or coaching staff during the playing season, off-season mowing height should be slightly increased to help with root growth and carbohy-

drate storage. Both elements are critical to sustain plant health and support traffic stress recovery.

Like mowing stress, traffic stress has also been shown to reduce the activity levels of reactive oxygen species scavenging enzymes in trafficked KBG athletic fields. Traffic resulted in decreased activity of three key scavenging enzymes for various timeframes after a traffic event. These results suggest that cumulative traffic stress increases the time required for antioxidant enzyme activity to return to baseline levels. While there are no proven products to counteract these declines, this shows that major traffic events are best spaced apart by 12 to 36 hours if allowed. Think along the lines of no morning practice on a field that will also host that evening's JV or varsity game.

Athletic fields must receive and tolerate traffic. Implementing sound and consistent cultural practices will ensure your turfgrass is prepared for whichever cleats and creatures come its way. **SFM**

Ben Pease, Ph.D., is the turfgrass agronomist for The Andersons, Inc. He received his undergraduate and Masters degrees from the University of Wisconsin-Madison, and his Ph.D. from Iowa State University. Pease has spent time as an assistant golf course superintendent, a lawn care operator, and as a turfgrass research scientist.

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JOHN MASCARO'S PHOTO QUIZ

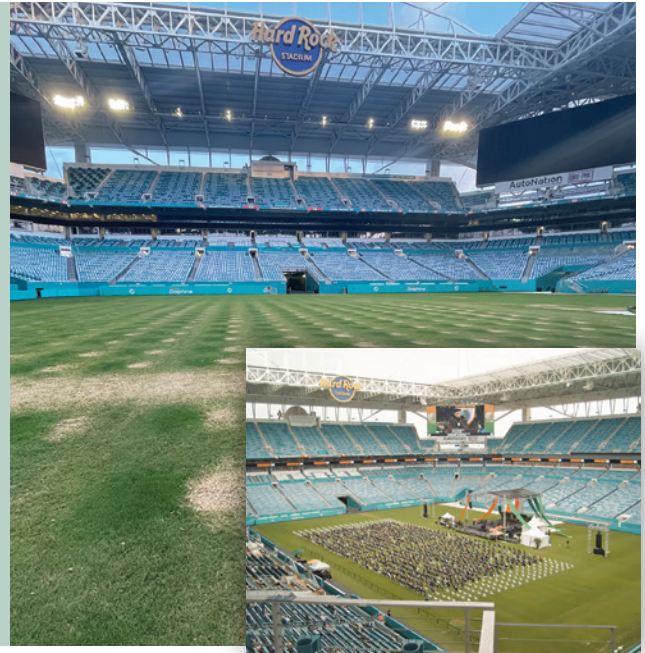
ANSWER

From page 17

The brown circles on this professional football stadium field were caused by wear; however, what caused the wear is interesting. As the COVID-19 pandemic was subsiding in May, schools wanted to have in-person graduations again. But due to the huge backlog of students graduating, a large venue was needed. This stadium hosted eight days of graduations from May 12-19 for two major colleges and two local high schools. Graduate seating consisted of chairs being placed directly on the grass, six feet apart. The brown circles were caused by foot traffic on the turf in front of the chairs. The brown line is a "foot traffic runway" leading up to the stage. The venue later hosted a Formula 1 viewing party, a Cryptocurrency event, boxing matches and a couple concerts. For those of you lucky enough to attend the STMA Tour of this stadium in January 2020, you know the overhanging roof on this stadium gives the turf on the field only about four to five hours of sunlight a day; which also makes growing turf with this schedule a daunting task.

Photo submitted by Tom Wilson, Miami Dolphins head groundskeeper at Hard Rock Stadium in Miami Gardens, Fla. Story facts by Tim Collins, assistant.

John Mascaro is president of Turf-Tec International



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 e-mail to john@turf-tec.com. If your photograph is selected, you will receive full credit. All photos submitted will become property of SportsField Management and the Sports Turf Managers Association.



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Agenda Announced for the 2021 National Sports Safety and Security Conference & Exhibition

The NCS4's 12th Annual National Sports Safety and Security Conference & Exhibition agenda is now available. The conference will be held November 9-10 at the JW Marriott Desert Ridge Resort & Spa in Phoenix in conjunction with Title Sponsor, Aluma. The 2021 conference theme is "Reconnect. Reflect. Inspire."

The conference provides an opportunity to reconnect with peers, reflect on industry changes and technological advancements, and support and inspire professionals making a difference in the safety and security of the sports and entertainment industries.

"We know how eager everyone is to gather in person, and we are excited to make that happen for our first face-to-face event since the COVID pandemic," said Lauren Cranford, NCS4 director of operations. "We are working hard to bring meaningful content that is important and relevant to the sports and entertainment industry, and look forward to sharing information and networking with peers during this exciting time together."

The NCS4 announced Mark Campana, Live Nation Concerts' chief operating officer, as a keynote speaker to kick off the opening general session. Campana will inform attendees about "The Changing Entertainment Landscape."

"The entertainment industry has adapted over the years to provide fans with better environments to enjoy a show, and it has been challenged to even a greater level over the past few years in that re-



gard," said Campana. "I look forward to delving into recent advancements in event management and what may be on the horizon."

General sessions cover broad topics with panel discussions relevant to sports safety and security professionals in today's ever-changing landscape, while breakout sessions allow participants to engage with panelists and attendees on key issues.

"The NCS4 provides a conference program that is a must for those involved with sports and special event management and security," said Joe Monroe, University of Kentucky's chief of police. "As we focus on rebounding from a pandemic, now is the time for you to connect with your peers and professionals to share best practices."

Chief Monroe serves as a panelist on the general session entitled, "If You Build It, They Will Come: Best Practices for Managing Security Projects

and Stakeholder Relationships," where presenters discuss best practices for planning, implementing, monitoring, and managing facility renovations and new construction projects based on continuous risk assessment and predictive forecasting. Additionally, the panel shares insight on effective collaboration tactics with project stakeholders and third-party contractors to ensure harmonious working relationships throughout the lifespan of a project and beyond.

Additional general sessions include:

- Diversity, Equity, and Inclusion: A New Lens on Safety and Security in Your Organization
- Negligent Security Litigation – Preparing for the Unexpected
- Integrating Cyber and Physical Security: An NFL Perspective
- DHS SAFETY Act: Lessons Learned From the Evolving Landscape

Attendees choose two breakout sessions from the following topics with content ranging from new technologies to communication, crisis intervention, and more:

■ **Breaking Barriers: The New Technologies Transforming Event and Venue Safety**

■ **Communicating in a Crisis: Are You Ready?**

■ **Enhancing Levels of Awareness Through Exceptional Focus, Performance, and Control in Extreme Situations**

■ **Intro to Crisis Intervention and De-escalation Tactics**

■ **Thought-provoking Security Program Continuity Considerations: Development, Evolution, and Continuum**

In the breakout session, "Intro to Crisis Intervention and De-escalation Tactics, participants can expect to learn the basic steps in de-escalation/crisis intervention based on cog-

nitive responses vs. visceral responses. "This helps the sports security industry practitioner understand the different motivations associated with various reactions in their respective venues," said Christian D'Alesandro, Dallas SWAT (Ret.).

In addition to keynote speakers, an awards luncheon, interactive panel discussions, and breakout sessions, attendees will have the opportunity to explore emerging technologies and network with peers during the conference. A social reception planned for the event's first evening allows practitioners, industry partners, and exhibitors to gather in the exhibit hall to network with friends and colleagues in a relaxed atmosphere.

To unwind after the conference, attendees can explore the 316-acre resort and surrounding the Sonoran Desert. The resort features five swim-

ming pools, a spa, and two championship golf courses. It is surrounded by desert vistas and mountain views with opportunities for hiking, horseback riding, and outdoor shopping nearby.

Visit ncs4.usm.edu/conference to register, or for more information. **SFM**

ABOUT NCS4

Established in 2006, the National Center for Spectator Sports Safety and Security (NCS4) is the nation's only academic center devoted to the study and practice of sports safety and security. The NCS4 is partially underwritten by grants from the Department of Homeland Security (DHS) and the Federal Emergency Management Agency (FEMA). The NCS4 mission focuses on three key pillars – Training and Education, Research, and Outreach. For more information about NCS4, call 601-266-6183 or visit ncs4.usm.edu.

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Tailor Your Application Materials to Rise Above the Competition

By Erin Wolfram and Melissa Johnson



When applying for jobs, it is important to know your job target and to tailor your resume and cover letter to each position. Although this can be time consuming, taking a more active approach to submitting applications will optimize your documents to demonstrate your interest in the position, highlight your unique qualifications, and ultimately help you rise above the competition.

TAILORING YOUR RESUME

Once you have an updated version of your resume that demonstrates

your key skills, strengths and accomplishments, you will want to make adjustments to your document to tailor it toward specific positions. The following are a few tips on how you can effectively tailor your resume.

Review the job description

For each job, print out a copy of the position description and highlight the following:

- The required and preferred qualifications that match your experience and background.

- The skills, knowledge and abilities included in the job description that you also possess.

Align your qualifications

When you are done, a majority of the job description should be highlighted, which means you are highly qualified. Now you just need to prove it by aligning your qualifications with the content in the position description.

- Compare your annotated job description to your resume, and, if needed, adjust your

resume to match the language, skills, experience and strengths you highlighted. For example, if your resume refers to “satisfied customers” and the job description refers to “players,” change your language to “players.”

■ You may also find you need to rearrange the order of your resume sections, add or omit information to highlight your most relevant content, or rename your

section headers to more closely align with the position.

■ If your resume includes a “Career Profile,” “Summary of Qualifications,” and/or “Skills” section, these are great areas to tailor your content, as needed, to each position.

TAILORING YOUR COVER LETTER

Never submit a generic cover letter with a job application. Your cover letter should be directed to a specific organization, position and contact person. You also want to clearly explain why you are inter-

ested in the position, and highlight a few key accomplishments that demonstrate how you are highly qualified. From the very beginning of the letter, you want to draw the reader in and make them want to read your resume to learn more about you. Below are a few tips on how you can effectively tailor your cover letter.

Address your letter to a specific person

Do what you can to find a specific person to address your letter to if it is not in the job posting.

Career Profile

■ Fifteen years of field management experience within public and private universities in the north-western and eastern United States, including five years in a management role.

■ Ten years leading teams to maintain cool-season grasses, including Kentucky bluegrass, perennial ryegrass, and bentgrass varieties on football, soccer, baseball and softball fields, earning regional recognition for quality and aesthetics.

■ Past president of two regional turfgrass associations; six years of service on board of directors.

■ Experience leading teams of 12 to 26 with a hands-on, mentoring approach and dedication to professional development; coached three assistant managers into management positions.

■ Proven ability to oversee capital improvement projects of \$.5 to \$2.8 million on time and within budget; strong network of architects and contractors through successful collaborations.

Sample career profile



July 15, 2021 ← Today's date

Ms. Staysha Cordera
Director of Facilities and Grounds
Pacific Northwest University ← Include the contact's name and title and the organization's name and full mailing address.
6431 College Parkway
Seattle, WA 41254

Dear Ms. Cordera: ← Always address your letter to Dear Mr. or Ms. + last name. Also, notice this is a colon not a comma.

Over the course of my fifteen-year career in agronomy, I have had the pleasure of managing turf at large institutions across the Western and Eastern United States. Most recently, I held the position of Sports Turf Operations Manager for the University of Atlantic, which allowed me to transform the playing conditions while supervising a staff of twenty-six. Through this experience I was able to employ valuable strengths in leadership to motivate our team to consistently produce high-quality, healthy turf. As I look to return to my Washington roots, I hope to do the same as your Grounds Operations Manager at Pacific Northwest University. I learned about this opportunity from my former colleague Brant Langston, who now works for Toro.

For the first ten years after college, I worked in assistant director roles on small and large campuses in Washington and Northern California. This provided me with a strong foundation for growing cool-season grasses, as well as a wide range of tree and floral species, in the Northwest United States. At Northern Oregon University, I played an integral role in the \$1.8 million renovation of their football field, which earned regional recognition in several professional organizations and publications. As you look to renovate your football practice and playing fields in 2022, the skills I developed throughout this experience will prove to be of great value.

I am also very active in national and regional professional associations and have held several leadership positions, including past presidencies. Through this involvement, I enjoy staying up-to-date on industry trends, best practices, and research and regularly apply what I learn in my own operations. As a leader, I also encourage my team members to participate in professional development to continually promote personal and professional growth. In my most recent position, I have held monthly professional development days where staff members share information from their individualized learning to reach a broader audience and benefit the group as a whole, which has earned positive feedback and improved morale.

Working on the East coast for the past few years has made me realize how much I miss the agronomic conditions in the Northwest. As a spectator, I have had the pleasure of visiting Pacific Northwest University numerous times and have always admired the campus. It would be an honor to continue my career at such a well-respected organization. Please contact me at 512-987-3658 or kstansbury_turf@gmail.com to set up an interview. Thank you for your consideration.

Sincerely,

Kade Stansbury

Include the following in the first paragraph: the specific name of the position for which you are applying, how you learned about the position, and why you are interested in the position and/or organization.

In the body of your letter, describe how your skills and experiences match the qualifications of the position and needs of the organization; summarize your relevant experiences; and try to incorporate key words from the job description, whenever possible, to demonstrate a strong fit.

In the closing paragraph, reiterate your interest in the organization and/or position, include your contact information (phone number and email address), and compel them to invite you to interview for the position.

Sample cover letter

■ Look on the company website for the human resources or department manager.

■ Utilize LinkedIn or Apollo.io to find the human resources or department manager.

■ Call the organization and ask.

■ Address your letter to the hiring manager if you cannot identify a contact.

■ Never address a letter "To whom it may concern."

Express your interest in the position and organization:

Hiring committees are looking for qualified applicants who have a

specific reason for wanting the job at the particular organization. By expressing this, you provide valuable information that demonstrates you don't just want any job; you want that job and know why!

■ First, remember to refer to the specific position and organization and how you learned about the opportunity in the opening paragraph.

■ Then make a list of the reasons you are interested in the position and organization and how you are uniquely qualified.

■ Use the information from your list to express your passion for the

position and organization and share the value you will bring if hired.

■ Additionally, select a few key accomplishments to share that demonstrate your qualifications to further grab the reader's attention.

As you find opportunities for which to apply, always be thinking about why you are interested in the position and organization, as well as the unique value you will bring to the organization if hired so you can adequately demonstrate this throughout the application process from beginning to end. It is always worth the extra effort to tailor your application materials to each position for which you apply and will always help you stand out in a positive way. **SFM**

Erin Wolfram has more than 15 years of experience in career services, and owns and operates Career Advantage Golf (<http://careeradvantagegolf.com>), specializing in career services for those in the turf management field. She has a podcast called A Year of Career: 52 Practical Answers to Your Questions, where she provides quick career and job search advice. Wolfram has a Bachelor of Science in Secondary English Education, Master of Science in Counseling Psychology, Master of Science in Educational Technology, and is a certified professional etiquette consultant. She can be reached at erin@careeradvantageresumes.com.

Melissa Johnson has more than 20 years of experience working with individuals from a variety of careers and industries. She specializes in one-on-one career coaching, resume and cover letter development, and job search assistance. Johnson has a passion for providing individualized support and guidance for each of her clients to ensure they are able to achieve their career goals. She has a Bachelor of Arts in Psychology and a Master of Education in Counseling Psychology.



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The Most Damaging Invasive Plants in the United States

By Evelyn Long

When deciding what to plant, landscape and grounds management professionals must be sure they don't incorporate invasive species, as they can pose a threat to the surrounding natural ecosystem. Many of the plants that are now considered invasive have escaped from past gardens and landscapes, and even though they look beautiful in a flowerbed or landscape, it's best to steer clear of them.

Invasive plants are alien or non-native to the ecosystem. They will spread when introduced to a region because they have little competition. If things get out of hand, they will likely cause economic, environmental and health damage.

Here are some reasons why invasive plants are thriving in almost any climate or region:

- They produce many seeds in a short amount of time, making them easy to spread.
- Invasives thrive on any soil, even if it is disturbed.
- Some non-native plants can produce chemicals that prevent other plants from growing near them.
- Root systems on invasive species can stretch far and wide, preventing natives from spreading.
- The seeds are distributed by various means, such as animals, wind and even human contact.
- The root systems also grow densely, meaning they overtake others around them.

The impact of invasive species makes it difficult to grow any native plants, and invasive plants often hard to get rid of. These efforts can



*Japanese honeysuckle (Lonicera japonica). Photos by Ann Murray.
Copyright University of Florida*

include everything from chemical management to the use of full-scale land management equipment to pull up woody plant life.

Invasives decrease recreational opportunities, increase soil erosion, degrade wildlife habitats and lessen water quality, which is why landscape and grounds management professionals should avoid them at all costs.

The following are some of the most damaging invasive plants in the United States.

1. ENGLISH IVY

The spread of English ivy began back in the 1700s when European colonists began to arrive in America. They brought this plant with them because it's easy to grow and it provides a green groundcover. English ivy is one of the worst plants for landscaping. It quickly spreads in any condition, and it will grow on the sides of homes, as well as trees. Once it does, it slowly kills them because it restricts sunlight.

2. CHINESE WISTERIA

Chinese wisteria is a popular choice for many gardens and landscapes. However, despite its beauty, it is an invasive species. It's a flowering vine that has proliferated in the eastern United States because of the similar climate in China. This plant can displace native species. Like English ivy, Chinese wisteria can kill large trees, so avoid planting this in landscaping.

3. JAPANESE HONEYSUCKLE

Japanese honeysuckle has very few enemies in North America. Initially, people brought the plant to America because of its erosion control and ornamental use. It's another type of aggressive vine. This invasive plant can completely smother out any other vegetation by tightly wrapping itself around stems and trunks and growing thick roots. It produces an attractive berry for birds, so they eat the fruit and spread the honeysuckle.

4. BRADFORD PEAR

Bradford pear trees may produce beautiful white flowers in the springtime, but they are an invasive species that should be avoided in landscaping. It's a common plant in many regions of the eastern United States. These trees can form long rows along roadsides and in old fields. They choke out native species in many natural areas and parks. Garden centers commonly sell them, but they should not be planted.

5. NORWAY MAPLE

Another popular landscaping tree is the Norway maple. However, it is invasive and it can spread into woodlands even if it stays in a managed landscape. The native tree that it outcompetes is the sugar maple. Norway maples make it difficult for wildflowers to grow because they can form a dense canopy that blocks sunlight. It's important to be aware of the differences between sugar maples and Norway maples so they can be avoided.

6. JAPANESE BARBERRY

Like many other invasive plants, the Japanese barberry came to the United States as a decorative plant. It escaped from the confines of a yard, and has spread throughout forests all across America. Japanese barberry crowds out native plants, and is the perfect home for the black-legged tick, which carries Lyme disease.

Remove any barberry on a commercial or residential property. Younger plants can be pulled up by hand, but established ones require professional landscaping equipment.

PREVENTING INVASIVE SPECIES FROM TAKING ROOT

Landscapers should be educated on invasive species to avoid using them for projects. However, another crucial prevention aspect is preventing unwanted plant life from taking root by chance. Recycled wood chips and other mulches can guard against

Be wary of transporting invasive species via lumber and other materials that can hide determined plants and insects. It's accidental transportation that often allows invasive species to spread in a new environment.

stray seeds that may start pollinating in welcoming soil.

More generally, be wary of transporting invasive species via lumber and other materials that can hide determined plants and insects. It's accidental transportation that often allows invasive species to spread in a new environment.

CHOOSE NATIVE PLANTS INSTEAD

Native plants are the best option for any landscape. They're already adapted to the region's soil, climate and any other weather conditions, making them a lasting choice that is sure to look great.


Plus, they're pollinator friendly, low maintenance, and they help maintain native biodiversity. When possible, choose natives for public or private landscapes to ensure the long-term health and success of landscaping site. **SFM**

Evelyn Long is a writer and editor focused on home building and construction. She is the co-founder of Renovated, a web magazine for the home industry.


Editor's Note: This article originally appeared on Landscape-Business.com an affiliated production of SportsField Management.

STC Helping Sports Field Managers

By Dan Bond, CAE



SYNTHETIC TURF INFILL CONTROL



FIELD DESIGN

- 1 SPLASH**
Select a synthetic turf system that has low infill splash characteristics
- 2 BARRIERS**
Fit containment barriers on all boundaries of the field to ensure infill cannot leave the control zone
- 3 GRATES**
Fit decontamination grates/ mats to all field entrances

- 4 BRUSHES**
Place boot cleaning brushes at main player access gates
- 5 DRAINS**
Ensure all storm water drains within the control zone have suitable micro-filters to capture any infill in rain water run-off
- 6 SNOW**
Ensure any snow removed from the field is always stored within the control zone

FIELD MAINTENANCE

- 7 BRUSHING**
Have a dedicated maintenance brush that never leaves the control zone
- 8 CLEANING**
Thoroughly clean all maintenance tractors and plant before they leave the control zone

FIELD CONSTRUCTION

- 9 INFILL STORAGE**
During installation ensure infill is only stockpiled within the control zone
- 10 FIELD REMOVAL**
At the end of the synthetic turf's life, lift and dispose of it responsibly

ESTC | 40, rue Belliard, BE - 1040 Brussels | www.estc.info | info@estc.info

Sports field managers have incredibly difficult jobs. Managing sports field playing surfaces to the safest level possible for people of all ages and abilities — from pee wee to professionals — requires substantial education, honed skill sets and abundant resources at your disposal. This is in addition to the significant challenges presented by COVID-19. The Synthetic Turf Council (STC) has spent the past year working to create additional resources to help you achieve your synthetic turf surface goals.

UPDATED TECHNICAL GUIDELINES

In July, the STC released the updated *Guidelines for the Essential Elements for Synthetic Turf Systems*. This technical document improves the level of confidence in the process of selecting synthetic turf systems by owner/user/clients, selection teams and design professionals. It also facilitates a guideline for industry testing for all the parties and aids in the confirmation of meeting the expectations and the delivery of systems, products and services in order to promote genuine satisfaction by the user/owners of synthetic turf systems.

This is in addition to the *Performance and Durability Guidelines for Shock Pads* document that was released in 2020. What better way to ensure managing sports field playing surfaces to the safest level possible than referencing the latest industry guidance? All technical guidelines are available through the STC Technical Guidelines page (<https://www.syntheticurf.org/page/guidelines>).

INFILL CONTROL RESOURCE

Through our close relationship with the Europe Middle East Africa Syn-

thetic Turf Council (ESTC), the STC is pleased to share a new resource to control infill levels for synthetic turf sports fields for every region/climate (see graphic). The resource contains sections on field construction, design and, most importantly, maintenance. The maintenance section includes helpful guidance for field managers on brushing and cleaning. Feel free to use/share with your field crews.

STC ANNUAL MEETING

The STC will host its 2021 Annual Membership Meeting October 18-20, 2021 at the Loews Ventana Canyon Resort in Tucson, Ariz. The meeting will feature multiple in-person networking opportunities, valuable educational programming, and an Exhibitor Showcase that highlights the latest products and innovations in the synthetic turf industry. It's the first face-to-face STC

meeting since 2019. Registration and agenda information can be found at https://www.syntheticurfCouncil.org/page/annual_meeting.

STC MEMBERS DONATE SPORTS FIELD TO CNIB

Through the generosity of member companies and individuals, the STC is donating a synthetic turf soccer field, mini golf course and amenities to The Canadian National Institute for the Blind (CNIB) Lake Joe in Ontario, Canada. Since 1961, CNIB Lake Joe has been providing a unique blend of recreation and skills development in a safe, inclusive environment. The field dedication ceremony took place August 17.

CNIB Lake Joe is the only camp of its kind for Canadians with sight loss and their families. At CNIB Lake Joe, children are encouraged to shine, youth are empowered to thrive, and

"kids of all ages" enjoy recreational pursuits, skills development, confidence building, and support from an inclusive community that understands sight loss. Having access to sports programming at CNIB Lake Joe means kids and adults will safely challenge their perception of their abilities, realize their potential and find their voice to educate others about how they can be involved in sports in their own hometowns.

This is just the latest example of the generosity of STC members. To learn more about STC's community outreach, CNIB or to donate, visit <https://www.syntheticurfCouncil.org/page/CommunityOutreach>. **SFM**

Dan Bond, CAE, is president and CEO of the Synthetic Turf Council. If you have thoughts on any of the above topics, he would love to hear from you at dan@syntheticurfCouncil.org.

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The following are some industry Tweets from the past month:



@kelren31

Getting to punch off the “AAA” part of my Be A Head Groundskeeper At Every MiLB Level Card today. Do I win a free car wash or something? #MiLB #OpeningDay

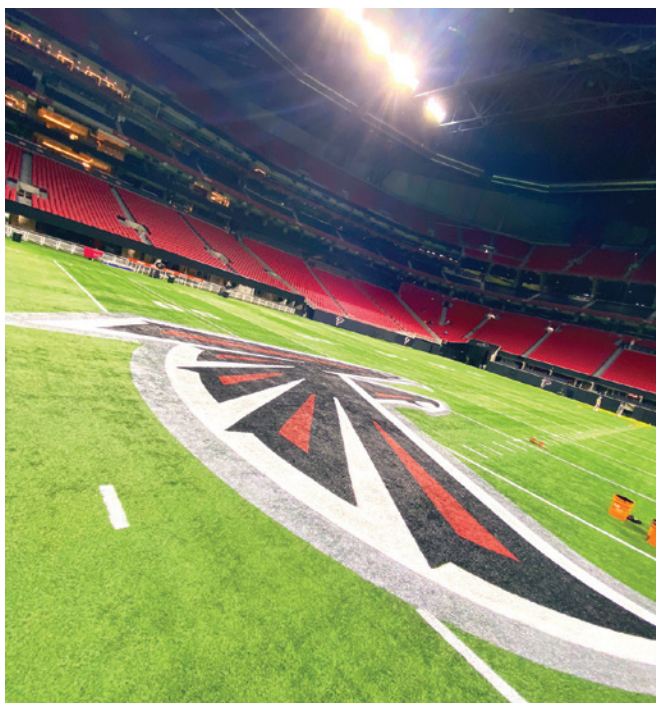
AUGUST 10



@mark_mrocz

Report day! #winninginparadise #fau #sportsfieldmanagement #stma @FieldExperts #1.8milestotheocean

AUGUST 5



@NPappas23

Bird number two of the season. Stadium practice tomorrow.

AUGUST 6



@Grassybrit

Great turn out for the Ohio Lawn Care Field Day today! @ohiobugdoc @osuturf @OSU_ATL_Turf

AUGUST 5



@campbet004

Rain brewing

AUGUST 2



@mattbrud

All 6 training fields looking happy after the maintenance work done in July after Gold Cup. A lot of verticutting, brushing, and aerification. Ready to go for academy starting back up this week.

AUGUST 2



@msudawg2004

Well Hello there beautiful. @felicianog_7 has Scott Field ready for @HailStateFB Big Dawg Camp tomorrow! Football season is right around the corner.

JULY 29



@BlakeMarschand

Great day @PUSportsTurf laser grading @PurdueBaseball and @PurdueSoftball

#marschandsafs

JULY 28



John Deere launches Gator XUV Honor Edition utility vehicle

John Deere introduced the Gator XUV835M Honor Edition utility vehicle, designed to pay tribute to military veterans. These special edition models feature desert sand exterior panels, military-inspired graphics, and feature several model upgrades. The units will be available for a limited time, and can be preordered now by connecting with your local John Deere dealer.

The Gator XUV835M Honor Edition is available in an open-station configuration, as well as an HVAC (heating, ventilation, and air conditioning) cab configuration. In addition to the new desert sand exterior color panels, the Honor Edition models come standard with the following:

- Military-inspired model numbers, brand, and graphics
- Black alloy wheels with Maxxis Bighorn 2.0 Extreme Terrain radial tires
- Black vinyl 40/60 split-bench seat
- Sport steering wheel
- Half-doors (open station models)
- Black roof
- Stone headliner (HVAC cab models)
- Brush guard

- Deluxe cargo box with spray-in liner, brake lights, and taillights

- Cargo box power lift

All model-year 2022 full-size Gator utility vehicles, including the Honor Edition models, can be ordered with Predator heavy-duty all-terrain radial tires. These are an excellent option for use on hard surfaces or intermediate off-road applications. Predator tires provide additional shock absorption and increased tread life while reducing ground pressure and terrain impact.

In conjunction with the launch of the Gator XUV835M Honor Edition, John Deere is supporting The SAVE Farm, which provides farming, ranching and agribusiness training and healing programs for service members, veterans and their families.

New TurfKeeper and TurfKeeper Pro rear-mount, rear-discharge finish mowers from Woods Equipment Company

Woods Equipment Company introduced two new rear-mount finish mowers: TurfKeeper standard-duty and TurfKeeper Pro premium-duty.

A significant level of customer research provided the basis for the design updates to the current RD and PRD series finish mowers. This feedback translated into deliverables such as best-in-class cut quality, ease of attachment to tractors, low cost of ownership, and durability.



Enhancements include quick-hitch readiness as shipped from the factory, and an improved driveline holder for ease of attachment. New high-lift blades, under-deck baffling, and wider discharge outlet combine to provide best-in-class cut quality. Other new features, such as belt shields with thumbscrew attachment (no tools required), ductile iron sheaves for better belt grip and a robust gearbox warranty (TurfKeeper Pro – 6 years; TurfKeeper – 3 years) make maintenance easier and less costly.

The TurfKeeper is available in 60- and 72-inch cutting widths, and is intended for use on tractors between 15 and 35 PTO horsepower or less, while the TurfKeeper Pro offers 60-, 72- and 84-inch cutting widths for use on tractors between 15 and 50 PTO horsepower.

Honda GXV160 engines now standard on Turfco TurnAer XT5 aerators

Turfco TurnAer XT5 aerators now come equipped with the Honda GXV160 engine.

“We’re equipping the XT5 with the Honda GXV160 in response to customer requests,” said Scott Kinkad, executive vice president, Turfco Manu-



facturing. The company changeover to the new engine is already in place.

The 163cc, 4.3-hp. GXV160 supplies more than enough power to keep the XT5 churning day in, day out. The large-capacity, 1.5-gallon gas tank allows for longer use between fills. It runs on regular unleaded pump gasoline. The OHV engine is built for high-output, fuel-efficient operation, while also delivering quiet, reliable performance.

Highly maneuverable and user friendly, the XT5's hydrostatic controls make it one of the smoothest walk-behind commercial aerators available. It steers, reverses and performs — all without lifting its tines.

Operators can turn and reverse direction with the XT5 while keeping the tines in motion, thanks to the hydrostatic drive system coupled to Turfco's patented, steerable aerator technology. Turning with tines to the ground reduces operator fatigue and improves productivity.

The XT5 also features Easy-Change tines, dramatically reducing the amount of time required to change tines. Patent-pending tine wheels enhance steering and increase hill-holding stability. A removable tine cover helps speed up tine changing and cleaning.

The XT5 also advances aerator durability with a low-profile design and rugged, unibody steel frame. Instead of belts, the XT5 uses drive chains that are covered and located outside of the frame for long-lasting, trouble-free operation.



Western Products unveils new mid-duty plow and drop spreaders for UTVs

Western Products announced three new products to its line of non-truck equipment: the Western Impact mid-duty UTV straight blade plow and the Drop 250 and Drop 600 drop spreaders.

"These new products for mid-duty UTVs and tractors are something we've been excited to share with our fleet owners for a long time," said Tyler Jones, product manager of non-truck snow and ice control products for Western Products. "UTVs are agile and less expensive than other snow and ice service vehicles. When equipped with purpose-built products, UTVs can dominate sidewalk work and keep

crews warm, safe, and inside a protected environment."

The Impact mid-duty UTV plow features hydraulic positioning and a lightweight design that provides power, speed and precision for a tailored snow removal solution for mid-duty recreational utility vehicles. The 5'6" and 6'0" widths fit sidewalks perfectly, and high-strength components ensure commercial durability. The patent-pending Sway-Frame design allows the blade to shift from side to side, keeping the blade in line with the wheel track when angling. Fully hydraulic blade control allows the operator to quickly make the necessary blade adjustments — up/down and angle — from inside the cab for fast and efficient winter cleanup.

The all-new 2.5-cubic-foot and 6.0-cubic-foot drop spreaders — built from laser-cut stainless steel and constructed with high-strength rivets — provide a spread width of 30, 33 or 36 inches in a drop pattern, so the salt stays precisely where the vehicle drives. The stainless-steel drop spreaders come standard with three mounting systems to fit most UTVs, compact tractors, or wheel loaders. They are designed to make quick work of sidewalks, walking paths and other paved surfaces where truck equipment can't easily gain access. Variable-speed control allows the operator to precisely match the material delivery rate to the conditions. The free-flowing material delivery system ensures a consistent amount of material flows into the spreader trough. Once the job is complete, the entire trough drops open for fast and easy material clean-out. **SFM**

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MANAGEMENT

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

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 Association of New Jersey: www.sfmanj.org

North Carolina Chapter of STMA:
www.ncsportsturf.org

Northern California STMA:
www.norcalstma.org

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

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Irrigation Management

Q: I am looking at ways to better manage irrigation on our baseball field. We hand water the clay, but I want to refine how we schedule irrigation for the turf area. What are some of our options?

A: This is a great question with lots of options for you to consider. I will only have space to scratch the surface, so you will probably want to consult with irrigation vendors and equipment experts to get more specific information and pricing on some of the options I will mention.

There are three major components to irrigation management — monitoring, irrigation control, and water delivery. These three components can also be further broken down. For example, monitoring may be evaluating turfgrass stress indicators, soil moisture levels, and/or weather conditions.

Turfgrass stress indicators will often show up in response to soil drying, and provide a visual queue that the turfgrass needs to be irrigated. The indicator will be wilting turfgrass, commonly seen as folded or curled leaves or a bluish-green-color turf. There are often specific locations on each field that show early signs of moisture stress. These areas can be used as indicators that the larger area of the field needs to be irrigated. Research is currently evaluating cameras and sensors to detect stress before it is visible, but this technology is mostly experimental. So, at this point, it is not useful for automation of scheduling irrigation.

Soil moisture monitoring may be accomplished using static, in-ground soil moisture sensors or by using portable sensors. The in-ground sensors may be linked back to your irrigation system controller for automation, and most can be monitored remotely with a smart phone. The most common portable soil moisture sensors use TDR (time domain reflectometry) for quick and accurate measurements with minimal soil disturbance. They are a bit expensive, but for site-specific monitoring they are hard to beat. Some portable instruments have the option to collect geo-referenced data to allow mapping and monitoring over time.

Weather condition monitoring may be used for short-term irrigation adjustment or for predictive modeling of water needs. Many of today's irrigation controllers employ weather-monitoring devices and scaled-down

prediction models to automatically adjust irrigation controller runtimes based on current weather conditions and plant water demands. These are known as ET (evapotranspiration) controllers.

An irrigation controller that can use information from a soil or weather sensor, and automatically make adjustments, is known as a “smart controller.” All irrigation manufacturers have some type of smart irrigation technology in their product line. The newest systems designed around smart technology offer amazing control and monitoring, but older controllers can often be retrofitted to take advantage of sensor technology. Vendors will usually provide the expertise to set up their systems to maximize functionality.

Water delivery is the application rate and distribution uniformity of the water by your irrigation system. These two values are normally measured with an irrigation audit. They are important because they help you to schedule irrigation runtimes and ensure adequate water coverage of the area. If you want to conduct your own audits, there are several extension publications available online to lead you through the process. An audit is a great place to start in your quest to refine your irrigation scheduling, because it can reveal needed component repairs and adjustments while providing data to refine zone runtimes and compensate for poor coverage.

Along with the technologies mentioned, there are several best irrigation strategies that you should review. These are listed in BMP documents available from the STMA. By introducing new technology and initiating a few new strategies, you can have quality turfgrass with minimum water use. And since most of the new technology is automated, it may give you more time to concentrate on other things. **SFM**



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Questions?

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