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SPORTSFIELD AND FACILITIES

MANAGEMENT

March 2014

SportsTurf



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- IMPROVE YOUR IRRIGATION SYSTEM

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On the cover:

Action at Kobs Field, McLane Baseball Stadium, Michigan State University, where groundskeeper Jared Knoodle, CSFM, leads the day-to-day operations while being supervised by Amy Fouty, CSFM, head athletic turf manager for Sparty. Their field won the 2013 Sport Turf Managers Association's College Baseball Field of the Year.

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From the Sidelines

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Never enough space

Throughout every year we receive many ideas for articles to be published in the magazine. Most of the suggestions have some merit and we often turn to the members of the Sports Turf Managers Association's Editorial Committee to help us determine which topics they think we should pursue. Infrequently we think we have a great topic but can't find anyone who can devote the time to use their expertise in the area and produce a written piece. But most often we have a plethora of material and finding enough space in our pages is problematic. At least we have www.sportsturfonline.com as a vehicle for information that we can't fit in this hard copy.

Sometimes great ideas come from readers and occasionally one of you will just send a terrific article that hits my desk like an unexpected, and welcome, gift. This issue features a good example, on page 8; Dr. Norm Hummel, who runs one of the most respected soil physical testing labs in the country, sent us his thoughts on sand-grown sod.

I would also like to call your attention to the piece on page 20, "How to get the best performance from your crew." It is a good example of another way we produce content—asking questions directly to readers, most often STMA members. I very much appreciate those of you who respond to my asking you to answer questions; I know everyone has a long list of work to accomplish and my requests are just one more item. Please realize how much your experiences can help the next person. The STMA was built on turf managers' sharing ideas and tips, and the articles in which we hear from you readers is a neat addition to that foundation.

Speaking of not enough space for everything, here is some info on recorded education sessions from the STMA Conference. I couldn't fit it in where it belongs in this issue:

Recorded Conference education sessions

Take advantage of recorded conference education sessions. STMA partnered with IQ Media to audio and/or video record all of the education sessions. Recorded sessions will be available through an On-Line Library where users can have access to education at any time throughout the year. Visit the STMA Knowledge Center at stma.org under "Conference Education" for a free demo or to purchase education.

Price for an all access subscription to the online library is \$99 for conference attendees. Hurry and take advantage of this low rate before it increases to \$159 for STMA members. The non-member rate is \$199. Individual sessions will also be available via the online library for \$20 per session. A flash drive will be available for purchase for those interested in a hard copy back up to the online content.

These recordings benefit conference attendees unable to make it to concurrent sessions and sports turf managers unable to make it to the conference. The recordings are also valuable as a refresher throughout the year for sports turf managers to stay current and educated in the industry. ■

Eric Schroder

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President's Message

David J. Pinsonneault, CSFM, CPRP

dpinson@lexingtonma.gov



Reenergized, ready for spring, and many thanks

Wow! What a Conference and Trade Show we had in San Antonio. Even another ice storm couldn't detract from the high quality education, great tour sites, full and lively trade show, fantastic keynote speaker and exciting PBS video. Dr. Rick Rigsby challenged each of us to make an impact, not just at our place of work but in our everyday lives. The PBS video highlighted our commitment and professionalism to doing just that. Add to the mix seeing old friends, meeting new friends and sharing our professionalism surely brings energy to ourselves and what we do.

You also could not help being excited seeing the numerous first-time attendees, new members and students who were present. Let's not forget that one of our Founders and STMA's first President, Dick Ericson, also joined us. What an honor. I hope you enjoyed your Conference experience, and you are as energized and excited as I am about the upcoming year. Keeping this energy and focus on the upcoming spring sports season is easier to do during the latest blizzard, which dropped another 12 inches of snow on our athletic fields here in Massachusetts.

As always I am sure there are some things we can do better. Please look for the electronic Conference survey. It was through this survey that some of the positive changes to this year's Conference were made. We do listen! We find your input valuable and will use it to plan the 2015 Conference in Denver. If you did not make it to Conference or want to look back on something you missed, or something you want to use at your facilities, check STMA's educational resources for Conference audio and video availability. Conference is a valuable benefit of membership.

Your Conference committees do a great job in finding that one thing that appeals to each member—whether an educational topic, quality speaker, interesting facility to tour or varied networking opportunities. Please join me in a big THANK YOU to the Conference Committees and Staff for their work to bring you the type of conference you deserve as a member. Also, congratulations to our award winners, new CSFMs and new chapter (Indiana). We will be starting the 2014 committee work very soon. Committees and chapters are the lifeblood of an organization. We have had great committee work last year with strides made in the environmental arena, membership and international outreach to name a few. Thank you to all those who volunteered to serve the profession. The coming year will be even more exciting for committee work.

As I gaze out at our snow-covered athletic fields knowing that more snow is forecasted and knowing that the high school athletes can begin outdoor practice on March 17, I am ready for spring. The planning is done. The crews are ready. Communication and trust in our professionalism will be key to starting the spring season off right. I am reenergized and thankful to be part of a profession and an association that allows me to make an impact. ■

SAND-GROWN SOD REVISITED[©]

I have been employed in the turfgrass industry for 40 years this year, and I am now convinced I will go to my grave (or the crematorium) not understanding sod transplant problems or lack thereof. In most cases where the installation and post-installation care are done properly, there are no problems. I wish that was always the case. But before you even talk about maintenance, you must select the sod.

The standard in the industry is that the sod *must* be grown on a sand to be transplanted onto a sand-based mix. When you talk about a standard in the industry there are usually legal ramifications that if you don't follow those standards things don't work out they way they should. I don't deny that using sand-grown sod is the preferred way of sodding a sand-based field, but it often comes at a huge expense to the owners. Let's face it, there really aren't too many sod growers in this country that are growing their product on a sand, much less a sand that is sized similarly

to what a field is built with. Therefore, sand-grown sod is sometimes transported hundreds of miles to reach the installation site.

The fact is, I have probably seen at least as many problem fields where the "standard of the industry" is followed as not. In some of those cases the problem could be attributed to post-installation care. A new sand-based field is often a challenge to sports turf managers without experience with this type of field. There is definitely a learning curve. Based on my experience doing the forensic work on these problem fields, over-irrigation is often the suspected cause (**Figure 1**). I would guess that there is some element of fear that the mix will be droughty, that fear leading to excessive irrigation. A properly designed and built sand-based system should not be droughty, but that is a topic for another article.

On the other hand, I have seen installations that should have failed (based on our standard of the indus-

▼ **Figure 1.**
Overwatering
can cause issues
even with sand-
grown sod.



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try) that have done extremely well. These were sand-based fields that were sodded with sod grown on fine textured soils; as fine as silt loams. Higher profile examples of these include the Great Lawn in New York's Central Park and two sand-capped soccer fields at Cornell University.

In a recent project I was retained by a design firm to write the rootzone and turfgrass specifications for two sand-based fields for the Rush Henrietta School District in suburban Rochester, NY. The rootzone mix was my standard specification taking into consideration local materials. I specified a sand-grown sod. At the preconstruction meeting the cost of importing a sand-grown sod was discussed, as it was a concern. I explained that the use of a sand-grown sod was the standard of the industry and that using such reduces the risk of soil incompatibility problems. But then I shared my experience of successful projects where soil-grown sod was used on sand-based mixes, making it clear it was not my recommendation. I further explained that if there was a problem, regardless of the cause, that they would have no problem finding an expert to say that sod incompatibility was the problem. The risk was theirs to take.

The school district would realize thousands of dollars in savings if they used a local, soil-grown sod. They decided it was worth the risk. Before construction began we built a mockup of the field profile using the proposed rootzone mix and sod. Since this was done in winter, the study was conducted in a small growth chamber. I applied about 2 lb. P_2O_5 /1000 square feet from triple superphosphate and a pound of nitrogen from urea to the mix pre-plant. The sod was watered lightly to wet the sod twice daily with a deeper watering every 3 days. By week two I backed off on the water to once every 3 days without any problem. In 25 days we had dense rooting to a depth of 6 inches (**Figure 2**). This study provided the school district with some level of comfort in their decision.

The sod was a blend of Kentucky bluegrass cultivars with a small amount of Thermal bluegrass grown on a loam soil (49% sand, 42% silt, 9% clay). The football field was sodded in late July with temperatures well into the 80s. By the time of the first game was played 8 weeks later, roots were deep and dense (**Figure 3**).

I have to note that the sands used to make the root zone mixes in the Rush Henrietta fields as well as the Cornell sand-capped fields were coarser than a USGA greens sand. The fact that these coarser sands may provide better aeration and higher oxygen diffusion rates may have contributed to the massive and deep rooting we observed. I'm not sure I would be as comfortable using a soil-grown sod transplanted onto a sand on the fine end of USGA greens construction guidelines. But then, we aren't talking about greens.

If a soil-grown sod is used on a sand-based field, I think it will be especially important that the sports field manager employ a core cultivation program to include harvesting or sweeping the cores, followed by sand topdressing. In the long term it will be best to remove as much of

▼ **Figure 2. Left:** Rooting of sod 25 days after sodding in growth chamber.
Figure 3. Right: Rooting of soil-grown sod on sand-based mix, 7 weeks after installation.





▲ **Figure 4. Rush** Henrietta field after first game.

the imported fine textured soil as possible to maintain the sand as the growing medium.

In the event you have no choice but to use soil grown sod, here are some tips*.

- First, don't even consider a sand-based field unless you have the resources and commitment to maintain it properly.
- Set up a mockup profile as discussed with the rootzone and sod

proposed for your project; see how it goes.

- Use a sod just mature enough to harvest. Do not use old sod.
- Have the grower cut the sod as thin as possible, minimizing the amount of fine textured soil transplanted.
- Consider having a rootzone mix designed with a sand coarser than greens construction sand but still meeting accepted performance parameters.
- Practice good pre and post plant care, especially with regards to post plant watering.

A sod grown on a soil media similar to that on which it will be transplanted is still the best way to minimize the risk of soil compatibility problems. My intent in sharing these experiences was not to debunk or challenge any standards, but to offer some information and hope to those that may want a sand-based field but no easy access to sand-grown sod.

* My experience is predominately with cool-season grasses. These tips and your outcome may or may not apply to warm-season grasses. ■

Norman W. Hummel Jr., PhD, is President, Hummel & Co. Inc., a soils consulting service and soil physical testing laboratory, www.turf-doctor.com.

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▲ **Top Left:** Excess skin soil is being removed from the base path to improve surface drainage. **Bottom Left:** A tractor is being used to spread the amendment evenly over the entire skinned area. **Middle:** The amendment is being rototilled into the existing skin soil at the recommended rate. **Right:** Notice the color is dull because the amendment is dusty from the tilling process.

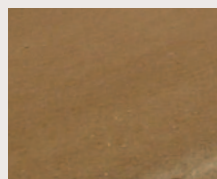
NO MORE MUDDY SKINNED AREAS

This article is the second in a series about muddy fields. The first one, “No More Muddy Football Fields” (July 2013), was about construction, reconstruction, and renovation practices that minimize muddy conditions on grass fields. This article is about alleviating muddy skinned areas of ball diamonds for both baseball and softball fields by replacing or amending the existing soil.

The number one complaint for skinned areas has to do with moisture—either too much or too little. Skinned areas with too much moisture will be wet, soft, and

muddy, while skinned areas without enough moisture will be hard, dry, and dusty. It’s important to remember, the recommendations that keeps fields from becoming muddy in wet climates also work for skinned areas in dry areas of the country. Soil texture and soil porosity are key elements for keeping fields playable in both wet and dry weather.

The opinions presented here are based on my 30 years’ experience with skinned area renovation and installation, along with feedback from hundreds of owners, coaches, and players. All of the examples are based on real world situations in renovating and building community fields, park and recreation fields, and high school and college fields.



Soil texture and soil porosity are key elements for keeping fields playable in both wet and dry weather.

THE IDEAL SKIN

The ideal skinned area has many or all of the following qualities: First and foremost, the skinned area is graded for surface runoff of water. It is playable soon after a heavy rain with excess water evaporating quickly. It has the ability to retain moisture yet deal with excessive rainfall. It re-

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sists rutting and washing out during a heavy rain event. And last but not least, it is easy to maintain, not dusty, and aesthetically pleasing. More qualities make the best possible skinned area.

AMENDMENTS V. CONDITIONERS

Amendments are relatively new for skinned area soil applications. Recently, crushed lava, shale, clay, and brick have been introduced for amending skinned areas. After crushing is complete the amendment is screened into a uniform range of sizes of 1/8 inch or less. Sometimes sand, silt, and clay is added to the mix depending on the texture of the soil to be amended. Amendments are typically added to skinned area soil that has a textural classification of “sandy clay loam” (the most common skin soil) at a rate of 50% amendment and 50% existing skin soil. At this rate, the physical properties of the existing soil are changed. The goal is to add enough amendment for bridging of the particles to create macropore space. A higher percentage of macropore space allows air and water to enter the profile then dry out quickly through surface evaporation. To take the guesswork out of the amendment process, make sure to choose a supplier who will test the physical properties of the existing skin soil and the amended soil. The amendment ratio varies from field to field depending on the texture of the soil to be amended.

Conditioners, on the other hand, have been around for a long time and have become a staple in the industry. Conditioners are either calcined clay, vitrified clay, or cal-

cined diatomaceous earth products. They are usually incorporated into the existing soil at a rate of 10% by volume. However, this rate is not high enough to be effective in bridging together to create macropore space and therefore does not change the physical properties of the existing soil. Nevertheless, they are a good choice for field managers on lower budgets because playability is definitely improved when conditioners are incorporated.

Before installing the amendment, prepare the skinned area by performing some simple renovation techniques. First of all, grade the infield for positive surface runoff of water with no standing water anywhere on the skin, infield grass, or foul territory. Remove all lips, mounded ridges, and hills leading from the grass to the skinned area. If there's any excess skin soil, remove it at this time to achieve the proper grade for surface runoff.

Next, seed or sod the edges before installing the amendment. In the North, the best time to seed is between August 15 and September 30. In the South, sod would be a better choice and can be installed anytime the sod is available. However, mid-August through late fall is usually the best time to sod the edges of both Northern and Southern fields because they may not be used at this time.

Now the field is ready for the amendment. Spread the amendment over the skinned area at the recommended rate. For the most part, an operator with a tractor can spread the majority of the material. Some hand work will be necessary along the edges and base paths.

For a 50/50 mix, rototill 1 inch of the amendment into 1 inch of the existing skin soil for a total of 2 inches of amended soil. Again, some hand work may be necessary along the edges and the base paths using a walk-behind rototiller.

Don't be disappointed in the color of the skin after tilling is complete. It's because the amendment got dirty during the tilling process. After the first rain, the amendment color will dominate because the rain will have washed the dust particles off the amendment.

REPLACING THE SKIN SOIL

In some cases, removing and replacing the skin soil is the only option. Some fields have an existing skin soil with many rocks over 3/8 inches in diameter. Other fields have a limestone skin area that's just too abrasive. The only way to improve the quality of both of these examples is to remove and replace the existing skin.

The first step is to grade the field for surface runoff of water. Perform the same renovation techniques that were described above in amending the skin soil. After renovation is complete, the removal process can begin. The reason for grading the field first is so a consistent depth of

▼ The final product looks like this after the first rain.



skin soil can be removed at a minimum of 3 inches deep. Then, the new material can be installed at a 3-inch depth over the entire skinned area. Now the field is graded perfectly for surface runoff. The final grade will mirror the grade that was established in the first step.

The companies that offer the amendments usually sell a skin soil that is made for new installations. It could be crushed material in a range of sizes of less than 1/8 inch to less than 3/16 inch with sand, silt, and clay added for stability. This blend has the same qualities and physical properties as the amended skin soil described above with one added advantage: the blending process at the plant is perfectly controlled with the right amount of sand, silt, and clay.

NEW CONSTRUCTION

For new construction, use the same blend of material that was described above for replacing the skin soil. Before installing the new material, make sure the subgrade is a mirror of the planned finish grade which is designed for surface runoff of water and a minimum of 3 inches deep.

Either the amended soil or the newly installed crushed material, with sand, silt, and clay is a great advancement in achieving the best



▲ **After grading** for surface runoff, 3 inches of skin soil is being removed in preparation for the new skin material.

possible skinned area for any baseball or softball field. And best of all, muddy conditions are alleviated. ■

Jim Puhalla is the president of SportScape International, Inc., Boardman, OH specializing in sports field design, consulting, and construction supervision, and coauthor of three sports field books.



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MICHIGAN STATE'S DR. DAVID GILSTRAP: NO HOLDS BARRED ON THE SPORTS TURF INDUSTRY

***Editor's note:** Dr. David Gilstrap has been teaching turf students at Michigan State since 1993 and after 21 years he is stepping down as coordinator of the 2-year turf program having been a major influence on many of the most successful turf managers working today.*

SportsTurf: What have been the most significant changes in turfgrass **education** you've experienced in your years at Michigan State?

Gilstrap: As far as formal education, the most significant changes have occurred in classroom technology and the methods by which instructors are expected to teach. Early on, I used transparencies or the blackboard, and the students had to take notes. Now, my PowerPoints are posted on the web so that students can print them off ahead of lecture and use to them to take notes. Fewer and fewer of them seem to be even doing that, however.

▼ **Heather Nabozny**, left, head groundskeeper for the Detroit Tigers and a former Gilstrap student, with David at Comerica Park in 2008.



Now, unless you're taking attendance or giving pop quizzes, more and more students simply don't come to class, and it's only on exam days that you realize how large of a class it is. The fact that during lectures you are elaborating on the presentations, having meaningful discussions, and perhaps giving additional testable material doesn't matter to many students when you are spoon feeding them otherwise. From my perspective, I feel that we don't have as many outstanding students as we used to, and that the overall quality of students has declined over the past several years.

ST: What have been the most significant changes in turfgrass **maintenance** you've experienced in your years at Michigan State?

Gilstrap: From my perspective, it's been the increased expectations of sports fields, both in appearance and playability. This, in my opinion, has been urged on by the turf managers themselves who have shown just how good athletic fields can be. Learning and adhering to the basics can carry you a long way.

Now it's at the big-time stadiums that field maintenance has evolved to an elite level of expertise that is specific to us. I mean, that's not a golf course that had to host back-to-back major, major events like the Rose Bowl does this year. And, except for Willie Nelson's, golf courses aren't used for concerts.

It's also at this level, and we're speaking of my particular expertise, that fungicide use has become rampant. On a per unit area, there are MLB teams applying more fungicides than even golf greens get. The manager's rationale is "It's a relatively small area, I'm not that good with diseases, and I can't afford a screw up." I know that we're talking about enclosed areas, but this is Kentucky bluegrass and perennial ryegrass or bermudagrass—not creeping bentgrass and annual bluegrass, both of which are much more disease susceptible than Kentucky or bermuda.

ST: What's been special about your program?

Gilstrap: It was the first program to focus primarily on

John Mascaro's Photo Quiz

John Mascaro is President of Turf-Tec International

Can you identify this sports turf problem?

Problem: Green circles on field

Turfgrass area: Municipal athletic field

Location: Portland, Maine

Grass Variety: Kentucky bluegrass

Answer to John Mascaro's Photo Quiz on Page 33



Background illustration courtesy of istockphoto.com

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— Thomas Marks
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▲ **Left:** Dr. Gilstrap with his family in 2012; from L to R: Madeline, Paula, Katy, and Harry. **Middle:** Slappy Gilstrap performing at Willie Nelson's Fourth of July picnic in 1978. **Right:** Preparing for a calibration lab class circa 2003.

sports turf management instead of golf. And, I'm not sure but it still might be. The program's roots date back to 1989 when the owner of the Detroit area Toro dealer at the time, who had also done quite well operating the Barefoot Lawn franchises in Michigan, donated money. The program was christened the Lawn Care Technology Program and the idea was that lawn care companies would send their employees to MSU for education and training. Its coordinators, in quick succession, were Drs. Roch Gaussoin (now at Nebraska), Eric Miltner (formerly at Washington State and now with Agrium Advanced Technologies) and Paul Rieke, who changed the program's name to Lawn Care/Athletic Field Maintenance.

I took over in 1993 and quickly realized that the only hope for the program was to shift its focus to sports. The only lawn care students were those who already had their own small lawn cutting businesses going and wanted to learn more about turf, mainly applying fertilizers and spraying herbicides. That's been the case over the years with the last person having interest in lawn care having graduated about 5 years ago. As far as the original plan for this program, no lawn care company ever sent an employee to MSU.

As part of my vision to put athletic fields in the program's forefront, its name became Sports and Commercial Turf Management in 1996. Enrollment grew over the years to about half what was in the 2-year golf program, whose numbers were declining since its heyday during my first several years at MSU.

ST: How did this favorable work environment develop?

Gilstrap: There are several reasons for this. The first is that being a sports turf manager has become recognized as a profession rather than a vocation. The second is the success of minor league baseball, especially when ownership realized that there were college graduates (and interns) who had specialized in taking care of their fields. And, they could be hired for not that much more than they were paying former lawn care employees or school janitors on summer break. What they didn't know is that it would cost much more to retain the good ones.

Another reason is that field conditions, especially when they were poor, were getting more attention at the MLB and NFL levels. Disgruntled owners wanted things fixed, and GMs figured out they needed to hire college educated, experienced professionals. This led to favorable publicity for sports turf managers who were successful and who usually credited their education as being a key asset.

Consequently, more people began considering sports turf as a pos-

sible career. And as the number of students increased, the more interns there were, the more graduates, the more resumes being circulated, etc. This has caused upward pressure to hire those with college educations. Routinely, job postings specify such among the qualifications needed, particularly at the upper echelons of our industry.

Now I have many good friends who came up through the ranks without having formal turf educations, and I value their opinions and appreciate all the good they have done. However, they are contrary to what I have tried to accomplish, and I've told many of them exactly that, hopefully in a good-natured way. I can especially tell if they agree with me when they ask how much it would cost for their son or daughter to go through my program. If they're from out of state, the conversation moves to another topic.

ST: What role has STMA played?

Gilstrap: Students are of course interested in scholarships, but we have much fewer available than does the golf program. In state, the Michigan Turfgrass Foundation has a big one designated for sports turf students, and MISTMA does the best they can. Over the years, my program's students have done well with the SAFE scholarships, and that recognition and support is greatly appreciated.

Also, the Annual Conference and trade show is a great benefit to the students. And while the Student Challenge contest seems to be important to some attendees, I've never tutored the students beforehand, and I certainly haven't wanted them studying in their hotel rooms, when they could be out networking and generally having fun in the manner that many college students enjoy.

ST: What are some of the biggest challenges facing sports turf managers today?

Gilstrap: Besides traffic and Poa, I would say it's keeping up with all of the regulations and associated paperwork so that you and/or your organization doesn't get cited or sued.

ST: Can you speak to internships and how they have evolved?

Gilstrap: Internships are the cornerstone of any turf management program. Our golf program already had the model in place, which was that our spring semester courses were shortened so that our student could be on their internships at the end of March. This has and still gives us an advantage in that they get to be there before the season begins, as in professional baseball. Then, typically by the time any interns from other programs show up, our intern already has 5 weeks of training.

At first, there really weren't any internship in sports turf, so I had to procure them one by one. All along, I knew that most of the best ones would be in professional baseball since the dirt work was an art and not something we could teach them in classes. Also, there would be long hours that they needed to experience to know if they really

wanted to do sports turf as a career. After several years, my grads were getting good positions and they wanted interns. Many of them wanted to provide a better internship than they themselves had had.

My students used to have many choices about where to go, but with other programs competing for them, this isn't so true anymore. This brings me to a problem I have with some places hiring several interns, in some cases more than ten, and working them in shifts to avoid paying overtime. While I can certainly understand this from a business perspective, the students aren't getting the true experience of being one of the first to get there and last to leave, so to speak. Consequently, they really aren't finding out what they would be getting into career-wise.

ST: Which former students have attained the most notoriety in sports turf management?

Gilstrap: It has to be Heather Nabozny, who graduated in 1994 and became MLB's first female head groundskeeper with the Tigers in 1999, and 2008 grad Greg Elliott, who now has two rings (and big playoff checks) from being head groundskeeper with the San Francisco Giants. Both of them went straight to the big leagues from Class A teams. The 2012 World Series was the first time that both head groundskeepers were from the same program. They were set to reunite in SF if the series got to six games. I had USA Today and Fox Sports cued up, but the Tigers got swept and that story died.

ST: What can sports turf managers do to continue advancing their professionalism in the eyes of the public?

Gilstrap: They need to be more active in their communities. Reach out to local service clubs, who are always looking for speakers. Make a brief presentation and then field countless questions about caring for a lawn. Get to know reporters and give them your cell phone number. Wear clean clothes and be well groomed in case the cameras are rolling. Basically, promote yourself and you'll be helping market your organization. Your bosses will love it, and hopefully you'll be rewarded.

ST: How did you get into turf?

Gilstrap: Well, it took awhile since I spent 15 years trying to make it in the Austin music scene. One of the many day jobs I had was driving a cab, and by happenstance it led me to an interview with a statewide lawn and garden distributor. I had gotten a general ag degree from a small cow college in Texas, which enabled me to know somewhat about growing things. So, after a 15-year hiatus, I had a full-time job and said goodbye to the nightlife.

I started out packaging vegetable seeds and then moved into sales. In looking through the catalog, I noticed several products that could be sold to the golf courses I'd been playing while a musician. I had success and garnered enough pull with the superintendents (mostly Aggies) to be elected to the board of the Texas Turfgrass Association.

At my first meeting, Dr. Ed Runge, head of the Soil and Crop Sciences Department at A&M, apologized for not yet finding a suitable candidate for the fellowship that had been recently created by the association. Feeling I needed another change in my life, I retook the GRE that I had first taken 17 years earlier. The results indicated that perhaps

Continued on page 40



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HOW TO GET THE BEST PERFORMANCE FROM YOUR CREW

***Editor's note:** We asked some prominent professional baseball head groundskeepers how they lead their crews to get maximum performance on the diamond. We heard from: Keith Winter, Fort Wayne TinCaps; Britt Barry, Dayton Dragons; Bill Deacon, New York Mets; Luke Yoder, San Diego Padres; and Greg Burgess, Greenville Drive. Here are their responses:*



▲ **Left:** Seattle Mariners' crew in action during an STMA Regional Conference in 2012. Photo by Anthony Murillo.
Right: Crew painting a logo at TD Ameritrade Park in Omaha. Photo courtesy of Dan Blank.

SportsTurf: How do you manage workers' expectations of the job?

Winter: In the hiring process, it is important to find out what the applicant's perception is of the job. In professional baseball, the "grind" is a reality I bring up early in all interviews. Education and work experience are important, but work ethic, perseverance, and a clear vision of what the job is about are just as important.

Barry: Before the season begins, we hold a meeting with the crew. We get pizza and

hand out crew shirts for the year. At this time we go through the expectations of the season, for example what to improve from last year, changes for this year, etc. This way everyone is on the same page moving forward into the season.

Deacon: When we hire someone or promote someone I sit and talk with them about what I expect from them, what the organization expects and we try and be realistic; it isn't all fun and good times there are going to be things that you have to do that you won't like. For me the good outweighs the bad and I try and make it the same for

our employees. I couldn't imagine going to work unhappy all the time.

Yoder: It is all about communication in the beginning prior to a hire. We do our best to give them worst case scenario. During the interview we leave out the "fun" parts or desirable aspects of the position. One question we ask is, "Will you clean the toilet?" even though they won't be doing that. It allows us to get a good read if someone thinks they are above certain tasks. We try to be clear on exactly what they will and will not be doing on the field. We then tell them that no matter if they are doing a particular job or not they can observe, ask questions, and see exactly how we perform a certain task which allows them to still learn. We tell them that in the end if they give it their all and come through with what we agreed on that we will go out of our way to give them a good recommendation.

Burgess: I address all expectations to members at the beginning of each season or their employment, and continue to touch on them often during pre-game meetings.

SportsTurf: How do you provide challenges for the crew?

Barry: We are fortunate enough to have a veteran grounds crew here with the Dragons. Most of the crew has been through almost every situation that occurs during the season. This helps to give the new members of the crew different tasks and challenges to gain experience in all areas.

Deacon: I believe in letting people work and make decisions. I do guide people and try and help them make the best decision possible but I believe the best way to challenge them is to let them work and not stand over them. I like to give them some freedom and then we go back and check and make sure things are done properly. I try and make it easy for them to come to me with questions; some employees are just naturally more comfortable going to one of my assistants so we also encourage that, the bottom line is getting the work done to the

best of our ability, and I believe people work better with a little freedom. We also try and rotate the work around to an extent so that all crew members know how to do more than one thing.

Yoder: We make it clear that we expect detailed, consistent results every day. We show them what we want and check on their work daily. The results we expect don't come easy. When we give them a timeline for their tasks to be completed this turns it up a notch for them to come through. The fact that it is an 81-game season is a challenge in itself to maintain quality day in and day out. Not to mention we have more on field events than Padre games.

Burgess: For the entire crew, full time, seasonal, or game day, I like to mix up the job responsibilities so they become skilled in all tasks we normally perform. I've seen this

pay off when we are in a crunch. It makes my job easier when crew members are not restricted to only one or two tasks. They welcome the change of pace with doing something else as most responsibilities can get monotonous in minor league baseball.

Winter: After proper training and a period of acclimation, I try to make an area(s) of the field "their own." This quickly gives new crew members a sense of entitlement and establishes ownership and pride in what they are doing. A communicated goal is to make the field as good as it can be each and every game on the schedule. We literally "compete" (against the weather, the calendar, fatigue) each and every day.

SportsTurf: How do you foster their strengths while managing their weaknesses?

Deacon: I think the first step is recognizing

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ing people's strengths and weaknesses; not everyone can do everything. Communicating about weaknesses can be a hard conversation to have but it is necessary. At the major league level it can be difficult for people to improve on their weaknesses because we can't let it affect the finished product. We do our best to let people try new tasks when the team is on the road or during the off-season, the delicate balance is you also don't want someone who is very good at a particular task to feel like they are no longer needed for that task; that is why I am a big proponent of rotating tasks and rotating shifts to an extent.

Yoder: If we find someone who is above average when it comes learning quick and being detailed-oriented we may be more inclined to put them on edge work or mound maintenance. If we get an individual who is mechanically inclined and good with equipment we may use them in that area. When time permits we will take advantage of that to teach and lead by example what we are looking for in order to help offset a weakness.

Burgess: I make sure I compliment their good work and help them find ways to better their weaknesses. We wind up hosting a lot of games and events so they get a chance to work on these weaknesses throughout the season.

Winter: Having raised three sons and coaching various sports at various ages for nearly two decades, I believe I have developed an eye for talent. I hire based on an individual's strengths, and wait for the weaknesses to arise. Once they are evident, I work to "coach" them through it either physically or emotionally.

Barry: Before each game, we have a list of pre/post game duties for the guys working that night. We learn who does what duties best, and who needs work in certain areas. If someone is struggling in certain areas, we put them with someone who excels in it which benefits both individuals.

SportsTurf: What do you find motivates most crew members?

Yoder: The fact that if they want to thrive in this industry a good reference goes a long way and visa versa. They come in here and knock it down for us we will help them find a job. We also let them know that if they are just an average worker and we ever get a call asking about their performance here we give our honest opinion.

Burgess: I take great pride in what I do and the product we put out on the field, and try to motivate by example. I make sure my crew knows they are a part of the product and if you take pride in what you do, you will see it. They develop the eye and the desire to make everything "perfect."

Winter: I think that clear cut expectations, consistency in person-

ality and management techniques, and the competition to have the best field possible, motivates my guys. I also outfit them with the best game day uniforms possible, do all their laundry, and "love on them" as much as possible. If they know they are cared for as a valuable part of a team, they will perform.

Barry: Motivation is easy to find early in the spring when the season is just starting. As the grind of the season wears on, it can be difficult to keep the crew pushing through the heat of summer. Being appreciative to the crew for their work is a major key to success. Compliments on their work, constructive criticism, and a simple thank you for their hard work goes a long way. If they are proud of the work they do, and look forward to improving it, the final product will be better.

Deacon: I think different things motivate different people. We have a union grounds crew so we have some guys that are motivated simply by the paycheck and overtime, and we have guys that are motivated to move into a position like mine. When we hire now that is what we look for—people that are motivated to move forward and move up, they seem to do the best job.

SportsTurf: How do you get everyone to work together?

Burgess: It helps when all the crew knows the process we use to get through a game day, pregame prep, post game prep, sod projects, etc. When the crew understands the processes, they run a lot smoother.

Barry: Success on the field revolves around working together. One of the biggest keys to that is communication. Keeping the crew informed on the daily schedule, what needs to be done, and who is doing it helps things run smoothly. Communication increases efficiency. The more efficient your crew is, the less tensions rise, and the easier it is to work together.

Deacon: We try and make everyone aware of what is going on and what we are trying to accomplish, this includes letting them know what events will be going on besides baseball. I don't think people like surprises, sometimes things come up and we adapt but I think the more everyone knows what is going on the easier it is to work to a common goal.

Yoder: First of all we go out of our way to interview and double check references for all new hires to not only find out if they are going to be a good worker, but just as importantly a good people person that can adapt well and get along well with others. The only option for all crew members is to work well together. We let everybody know that if they don't mold well or fit into our existing operation and the chemistry involved, that they won't last long. I value my crew and the long-term veterans and if they have a problem with someone, then I do too, and either [the problem] gets rectified

pronto or they gone. We simply do not tolerate anybody rocking the boat in anyway.

SportsTurf: What working environment or culture have you found works best to get a great crew?

Winter: Again, consistency is key to the work environment. There are few surprises when they come to work. They know it will be a safe place that is free of drama, bickering, and backstabbing. We communicate honesty and openly, and do it "right now." A great crew starts with great people. Great people are only found in a thorough, methodical hiring practice. I work to find individuals that fit our mold and motto, which is, "Hard work often times can be a substitute for knowledge, but rarely does knowledge serve as a substitute for hard work."

Barry: Again, we are blessed with a great crew here in Dayton. Each crew has a different personality, and functions differently as a whole. There is not one proper way to manage every crew; it depends on the personalities of the manager and the crew. We have a pretty laid back environment here. The crew knows what to do, and how to do it properly. Jokes are common, but hard work is as well. I believe this keeps the morale up and the job fun, which helps to create the best product possible for the team and fans.


Deacon: I think you have to be fair, honest and approachable. The job has to be enjoyable, which can be difficult, but you also can't sacrifice the quality of work for a good time. You have to remember the old saying "you can't expect someone to do something you wouldn't do yourself." I also believe it is important to acknowledge when people do a great job.

Yoder: A 'lead by example' operation and also a sense of ownership works best. By assigning crew members a specific area of our operation that they are responsible with their name on it creates a sense of pride and tends to get the extra mile out of an individual. We don't simply tell someone to do a job for the

first time or give them an assignment unless they have seen it demonstrated from someone who has done it 100 times before.

Burgess: All positive. Good or bad, I try to have the crew looking forward and how to better any situation and not dwell on

anything too long. If one person keeps a negative spin on things, it will bring everyone else down. I also try not to keep everything as employer and worker. I want to know about each member personally because as we go through the year, we all become a family. ■



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HIRING THE RIGHT PERSON

The process for hiring a new employee can be difficult and time consuming, usually takes a lot of preparation and work, and depending on the position it can have major ramifications for your staff. Having a plan and outlining the steps will go a long way toward being successful. I have outlined some steps that will hopefully cause you to think about the hiring process a little differently and provide assistance.



▲ **Bill Griffith**, Walla Walla CC, Walla Walla, WA

DETERMINE WHAT YOU NEED

What are your strengths? How do you spend your time? What are your weaknesses? Try not to duplicate your weaknesses in a new hire. Hire someone that is strong in areas that you are weak. Hire capabilities, not credentials or qualifications. "This guy must be good; he worked at major league ball club and has a master's degree from Penn State."

Should you use a job description as part of the hiring process? You are hiring a 3D person, so be careful about using a 2D resource. How im-

portant are the qualifications? How do qualifications, certifications, prior education, etc. fit into the role you are looking for the hire to fulfill?

How important is the attitude? Maybe the key is, "It's not what you know, but what you are willing to learn." Be very clear about your expectations. What role are you looking for this person to have on a day-to-day basis? Is hiring Superman really possible? Move from the conceptual to reality. Are you looking for the right person, or a resume? How do character, personality, prior education, etc., rank in importance in a new hire? What do you think the future goals should be of the person you are looking for? Is this a long-term position, transitional or career-building?

Make a list of the capabilities you are looking for. Things

like qualifications, certifications, prior experience, attitude, communication skills and teachability might be some areas to look at. Prioritize those capabilities.

DETERMINE HOW TO INTERVIEW

Select the interviewer(s): In addition to the immediate supervisor, there may be individuals with whom the candidate will interact who should also be part of the interview and selection process.

Identify selection criteria: The interviewer(s) should review the responsibilities of the position and reach agreement on what education and experience requirements are necessary, as well as the required behavioral qualifications (e.g., communication skills, teamwork, customer service).

Review cover letters/resumes/applications: Using the selection criteria, the interviewer(s) should carefully review the application materials to determine which candidates should be interviewed.

Develop appropriate questions: The interviewer(s) should develop job-related questions that will be asked of all applicants to probe their education, level of related experience, and other attributes required for the position. One great strategy is to look at other companies that have top performers and learn what makes them top performers. We network with our peers about other practices, why not hiring? What are the key factors you are trying to discover? Select and prioritize the key things you are looking for in a new hire. What are the key factors you need to disclose? What are the key things about your organization and you that you need to disclose to endure a good fit?

ASKING THE RIGHT QUESTION

Here are some good general questions:

- What do you expect from a manager? What can a manager do to help you stay motivated?
- Tell me about a situation where you were able to have a positive influence on the actions of another person? What did you do?
- How do you motivate yourself to do something you don't find enjoyable or really don't want to do?
- What do you do when you make a mistake? How do you handle it?

- Have you ever dealt with a manager's policy you weren't in agreement with? How?
- Share an example of how you were able to motivate employees or co-workers.
- Have you handled a difficult situation with a supervisor? How?

QUESTIONS THAT HELP DETERMINE ATTITUDE

- What kind of people have you found it difficult to work with? Why?
- Describe a situation where you were in the wrong, and others knew it. What did you do?
- Tell me about an instance where you had to work with an angry user. What was the problem? How did you resolve it?
- What has caused the most pressure for you in a work situation? What did you do about it?

QUESTIONS THAT HELP DETERMINE PERSONALITY

- What circumstance brings you here today?
- How would your best friend describe you?
- What would you say are your two greatest weaknesses?
- Sometimes, it doesn't hurt to throw a very abstract question into

the interview to see how the person responds, such as "Why are there interstate highways in Hawaii?"

QUESTIONS THAT HELP DETERMINE LEADERSHIP

- What is the difference between a leader and a manager?
- Describe the best boss you have had. How would you define the qualities of a good manager?
- Tell me about a leadership experience that did not go as planned.
- Describe some of the circumstances under which a leader can fail.

QUESTIONS TO HELP DETERMINE WORK ETHIC

- Who is the most successful person you know in our industry, and why do you think he/she is successful?
- Describe your work ethic.
- How many hours a week do you think you need to get your job done?
- Have you been in a situation where you didn't have enough work to do? What did you do? ■

Bill Griffith is a turf management instructor and advisor at Walla Walla Community College, Walla Walla, WA.



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SELECTING TURF ADHESIVE IS CRITICAL: Q&A WITH NORRIS LEGUE, AKA GURU OF GLUE®

Editor's note: Norris League is president of Synthetic Surfaces Inc., which manufactures synthetic turf adhesive products

There is no such thing as a “one size fits all” adhesive because an adhesive that is outstanding for one application might be a disaster for another. There are hundreds of adhesives on the market and some are excellent for one application and unsatisfactory for another. When a person asks, “What’s your best adhesive?” it shows the person has little knowledge of the complexity of adhesives. For example, that’s why the designers of first-aid “band aid” type adhesives do not want the adhesion to be

▼ Stand-up Trowel

so strong that it tears the skin when being removed. Oppositely, instead of stitches, a surgical adhesive that is designed to hold skin together after an operation must not prematurely peel away or break.

Q: Are there many different types of synthetic turf adhesives? If so, what are their differences?

Legue: That narrows it down, but it’s still a very broad subject. For example, there are adhesives for use outdoors vs. indoors; adhesives for recreational surfaces like synthetic turf athletic fields and playgrounds vs. synthetic turf adhesives for aesthetic purposes like landscaping, lawns, highway median strips, roof tops, etc. [Buyers] need to look beyond price as well; higher performing adhesives can withstand athletic activities and weathering and prevent the need for repairs later.

Q: What is your opinion on outdoor synthetic turf adhesives for installing and repairing synthetic turf athletic fields and playground surfaces?

Legue: Weather varies from hour to hour, day to day, with different seasons and different climates. Hence, the adhesive selected should not be a “fair weather only” adhesive because there will be a very limited installation and repair time window. Since time is money, unnecessary delays created by using “fair weather only” adhesives can be very costly.

Furthermore, selecting an outdoor adhesive based on indoor laboratory test results *after* the adhesive has cured is a waste of time.



◀ Left: Airless Spray Center: Glue Box Right: Squeegee

During installation, in very cold or very hot weather, a good outdoor adhesive should prevent the turf from moving due to wind lift, edge curl, creep, wrinkling, buoyancy from unexpected rain, expansion and/or contraction due to surface temperature changes from sunlight, shadows, passing clouds and so on. Furthermore, selecting an outdoor adhesive based on indoor laboratory test results *after* the adhesive has cured is a waste of time. The first important thing is installation in variable weather and after cure, then long-term exterior durability.

Q: What different types of adhesives for synthetic turf are used commercially today?

Legue: They are hot melts, one and two-part liquid solvent-free urethanes; one-part and two-part solvent-based urethanes; two-part epoxy and one-part solvent-free silane/silicone based adhesives.

Q: Of those, which type is most often used for synthetic turf?

Legue: It's one-part urethane adhesives by far, but the word "urethane" is like the word "metal." Just as there is a big difference between gold, zinc, cobalt, lead, iron, uranium, tin, aluminum, etc., there is also a big difference between adhesives that fall under the word "urethane". For synthetic turf, some give disastrous results and others, in our opinion, are far superior to other adhesives.

Q: Can you narrow down the type of urethanes that make it easier to install synthetic turf and those that are the opposite?

Legue: Relatively speaking, one-part liquid urethanes that are both solvent-free and with high isocyanates (NCO) contents above 9% have a host of installation problems ranging from crystallizing (turning solid) at about 50° F and not re-liquefying when warmed; to foaming in high humidity; to slow cure in low humidity; to negligible tack and "grab" to prevent turf movement during installation.

Oppositely, many solvent containing one-part urethanes with low NCO contents, enable turf installations ranging from freezing to hot desert temperatures; they do not crystallize on cold days; do not foam on humid days and do not stop curing in dry desert-like conditions. Installers don't have to "baby sit" them during installation.

Q: How do you find a synthetic turf adhesive that is suitable for an application?

Legue: I suggest contacting adhesive manufacturers and ask for literature and a MSDS sheet. If the information received is weak, ask about some of the points I've made here. Don't accept a verbal sales pitch or buy solely on low price. ■

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FROM THE GROCERY STORE TO SPORTS FIELDS: HOW AN IDEA CAN MOVE

Do you waste time every day meeting with your crew on what needs to be accomplished each day? Do you text message instructions on who needs to do what and when it needs to be done by? Does your staff always wait on you for things to do? If only there were a way to reduce the times you answer, “Yes!” to these questions? Well, not surprisingly, there’s app for that.

It is funny sometimes where you get ideas, or how a small idea can grow into a completely different application than it was originally intended for. I was at the grocery store one Sunday afternoon to pick up a few things, and like all good husbands, I texted my wife to see if she needed anything else. While pacing several aisles waiting her reply, I ran into my sister-in-law doing her weekly shopping for her family of six. When I told her I was waiting

on her sister to text me back, she laughed and said, “You don’t have an app for that?”

She began to tell me about an app that allows multiple users to access, edit, and check off items a shared list. She said it is the perfect “fix” because her kids can all use the shared list and add the items they need. So I immediately headed home and downloaded an app to my and my wife’s phones so we could begin sharing a list. I soon began to wonder if I could use this digital grocery list as a to-do list at work.

There are several shared to-do list style applications in both the Apple App Store and the Android Google Play market places. These applications allow users to create or upload lists, edit tasks, check off completed items, and even assign task to specific persons. Several of these apps are free to download and have the ability to purchase upgrades, such as Our To-Do List, SimplyUS, Wunderlist, and GTask. If it works for making sure your spouse helps get the grocery list done, why can’t we use it in the turfgrass industry?

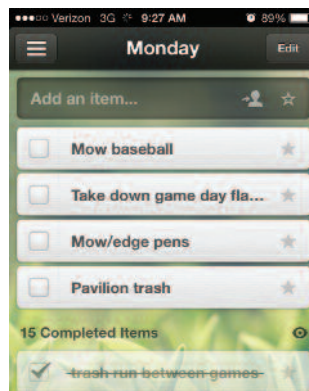
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Brant Williams, CSFM, CPTM, is Manager of Athletic Facilities for Dallas Baptist University.



► A screen shot of the Wunderlist app.



WHAT APPS DO YOU USE?

SportsTurf magazine is compiling a list of smart phone or other handheld device or laptop computer apps that turf managers are using today. Email us with a short description of the app and how you use it and we’ll list them in an upcoming issue. Thanks. Email the editor at eschroder@specialtyim.com

Main image ©istockphoto.com/cybrain

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Photo courtesy of GMB Architecture + Engineering, Holland, MI

Irrigation systems: care and maintenance

One of the many reasons field owners embrace the idea of synthetic turf is the fact that it will save on water bills since it doesn't need irrigation.

This is true; the field will stay green despite not having a regular drink. However, it's a rare synthetic field that doesn't need irrigation. And while synthetic turf does not need to be watered in the same way natural grass does, an irrigation system is essential. It helps to clean the field, settle the infill and reduce static electricity. It also helps reduce the much complained-about "heat island" effect common to synthetic fields in hot weather.

So while we can all agree that irrigation systems help fields function more efficiently, the question becomes this: what can be done to help irrigation systems themselves function more efficiently?

The good news: it's not all that complicated, really. Like all other aspects of a sports facility, an irrigation system will work as well as it is designed to, as long as it is maintained well and checked often. Taking a step back from this point, it's essential to remember that the better designed the system, the less likely

The investment of money on the front end to use the services of a quality professional such as a Certified Irrigation Designer can mean savings in the efficiency and integrity of a system.



information is available at
www.irrigation.org

John Mascaro's Photo Quiz

John Mascaro is President of Turf-Tec International

Answers from page 17

The green circle is not the problem, but it is pointing out the problem. The athletic field manager, who is responsible for 47 fields with a crew of four, was not invited to be involved in the reconstruction phase of this municipal athletic field by the contractor. The reconstruction included new irrigation, drainage and new sod. At the time, the city also had two separate crews, one in charge of the irrigation and one in charge of the turf. No one talked with each other and no one could figure out why the grass just wasn't growing well on this field. One day after some department "shake ups" and the combining of the irrigation and turf department guys, the athletic field manager was looking at a new Google Earth picture recently taken of the field and bingo, the problem became apparent. There was not enough water pressure to the irrigation system to give the heads a full pattern. The inner green circle was from the lower nozzle and the outer green circle was from the outer nozzle. As it turned out, a booster pump that was installed on the system was in another room full of piping that no one knew was there. Once they turned that on, the coverage was great and the grass began to grow well and the circles disappeared.

Thanks to Ethan Owens, Athletic Facilities, Playground & Courts Manager at the City of Portland (ME) for allowing me to use this photo. Photo taken by Matt Tobin, Pioneer Athletics. ■



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

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it is to have problems down the road. The investment of money on the front end to use the services of a quality professional such as a Certified Irrigation Designer (information is

available at www.irrigation.org) can mean savings in the efficiency and integrity of a system.

Once any system is installed, however, regular maintenance is your friend. None of it is too difficult; as long as it is done on a regular schedule, it will become easier.

At least on a seasonal basis, remember to do the following:

- Test the irrigation and drainage systems to ensure there are no leaks, breaks or blockages. If problems are found, consult construction diagrams to locate and investigate them.
- If the irrigation system has been winterized (drained or blown out), it should be reopened carefully, allowing water to flow slowly into the system zone by zone. Next, at a minimum, check the day and time on the controller to ensure it is correct and then run the controller through one full cycle.
- Check for the proper opening and closing of each valve.
- Check the spray pattern to make sure it is fully covering each zone.
- Check the operation of each sprinkler head. Do pop-ups function correctly? Do rotary heads rotate? Are heads at the correct height and are they adjusted correctly?

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- Is any sprinkler head allowing water to flow out (rather than spraying)?
- Is water being sprayed in the direction you intend? (In other words, the only place water should be falling is on the playing surface; it should not spray the dugout, spectator stands, areas outside the fence and so forth). Remember that water falling on other areas is (a) going to waste, and (b) may ultimately damage or waterlog those other areas if they don't have sufficient drainage systems. (And that's a story for another time).

Take the time to readjust, repair or replace any damaged elements in the irrigation system. If unsure of any of the workings, contact the designer or builder of the original system, who can provide information.

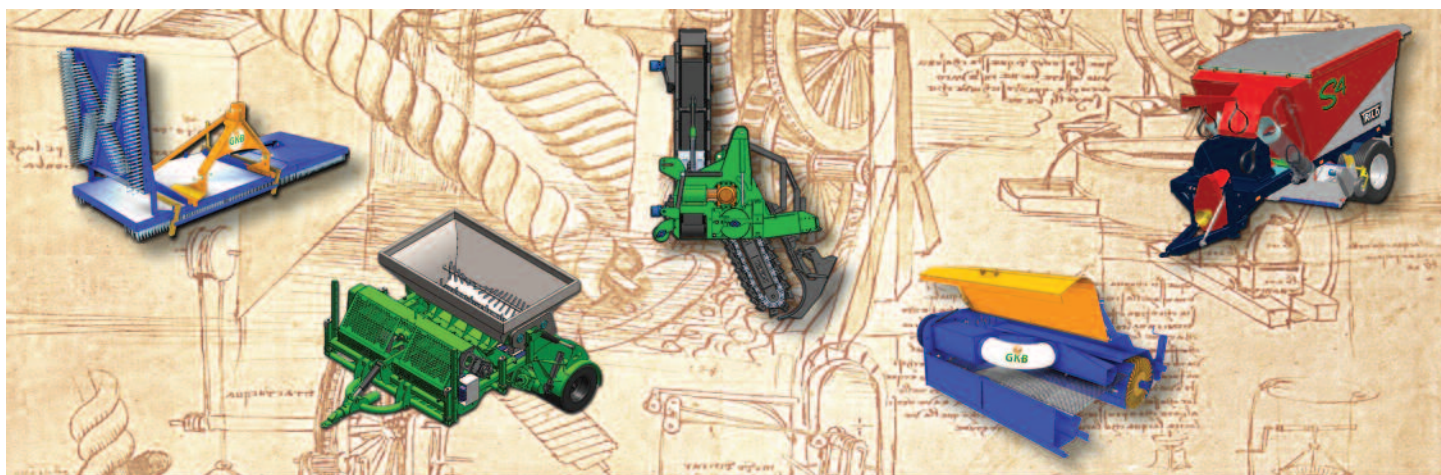
The efficiency of an irrigation system is irrevocably tied to the drainage system beneath the field. So once the irrigation system has been given its check-up, take the time to make sure it's working well with the drainage system. Irrigate the field heavily (or, if the weather is right, you can use a heavy rain as your yardstick. Either is fine; what you're looking for is a good soak to help you test the drains).

Once the field is saturated, carefully inspect the surface to ensure it drains as quickly as expected and there are no areas where

water collects or where the field does not drain. If you spot standing water, check how deep it is. Does this area drain more slowly, or not at all? Take pictures of the problem and contact your field builder, who can help you determine what is wrong. It may take a simple fix; it may be something more complex. One thing is for certain, however: whatever is wrong is not going to remedy itself, and will require some kind of assistance.

Keeping a field performing at its optimum level means putting in the extra time to make it work that way. No facility thrives on neglect and a field with excellent irrigation and drainage will remain playable, comfortable and hassle-free for years to come. ■

Mary Helen Sprecher is a free lance writer who wrote this article on behalf of the American Sports Builders Association. ASBA is a non-profit association helping designers, builders, owners, operators and users understand quality athletic facility construction. ASBA publishes Sports Fields: A Construction and Maintenance Manual, a comprehensive guide to the design, construction and maintenance of sports fields. The book is available for purchase either in hard copy or in electronic form. Information is available at www.sportsbuilders.org.



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▲ Ripken Stadium, Aberdeen, MD, home of the Single A IronBirds



▲ Neuroscience Group Field at Fox Cities Stadium, Appleton, WI

TIPS ON MOWING PATTERNS IN YOUR BASEBALL TURF

PATRICK “IRISH” COAKLEY, CSFM, sports turf superintendent, Ripken Baseball, Aberdeen, MD

“I don’t map out anything ahead of time for the mowing I do. I try to keep my patterns all straight lines, mostly for practical reasons such as providing a guide for fertilizing or spraying. We have two mowers we use, John Deere 2653 models, and the width of cut matches my boom sprayer, for example. It makes for more efficient and quicker work.

“This year for our stadium field (home of short-season Single A Aberdeen IronBirds), we’ll be using a Deere walk-behind reel mower for the infield, which we got to minimize the amount of traffic on the infield.

“I can mow a straight line; it’s just a matter of picking a spot and making sure you stay symmetrical. Keep it simple. When you have straight lines it also is easier to change out the pattern, especially if you have constant play like we do at Ripken Baseball.

“Reel mowers have a ‘spiral’ roller on the front that lays the grass in one direction so when the light reflects off it the grass appears to be a different color. It’s like vacuuming a carpet in different directions; the reflecting light can make it appear to be two different colors. When grass keeps getting pushed in one direction, it lays down and can create a ball that zig zags. You mow in a different direction to stand that turf back up

“During homestands, especially if they last more than three games, we change up the patterns because if you let it go too long that mowing in the same direction will affect the roll of the ball, especially in the outfield. I’ve become a fan of the ‘blank slate’ look in the outfield as well, where there is no pattern. This is the best for playability. But

if you’re going with patterns, it’s best to choose two or three in advance so that it is easier to change from one to another without having to mow all day. It’s a matter of efficiency, and simpler.

“If the homestand is only 3 days, you can get more intricate because you might only cut the grass one time in those three days, especially if you’re using PGRs.

“It’s all about efficiency for me; not taking too much time on the mower while not compromising playability.”

EDDIE WARCZAK, manager, grounds, Milwaukee Brewers*

“Over the years I have done many different patterns in both the outfield and the infield ranging from simple straight lines and checkers to team logos and baseballs. I have learned different methods from a variety of people in the industry but I have also learned a lot through trial and error.

“We try to change the pattern at least once a month however with our harsh spring and busy tournament schedule the first half of the baseball season the pattern doesn’t always get changed out as frequently.” — *Eddie Warczak*



"Mapping patterns depends greatly on the type of pattern. If we are doing straight lines, a checker board, or diamonds a simple string line to follow for the first cut does the trick. After the initial line is down I just work out from there. If however, we are doing something such as the team logo, then we use graphing paper followed by a grid of string lines on the field. We draw the logo on graphing paper, the graphing paper helps in converting the measurements you want. From there we will decide how large we want the logo in the turf, after that it is just simply staking out the string line to the correct measurements on the field and following the line with a mower.

"We try to change the pattern at least once a month however with our harsh spring and busy tournament schedule the first half of the baseball season the pattern doesn't always get changed out as frequently. We usually have a schedule of when we want to change the pattern and that includes what type of pattern. I like to start out the early season with just simple straight lines due to lack of staffing, weaker turf, and a busier schedule. By mid-season the turf is stronger, we have more staff, and our schedule plateaus, which allows us to lay-out more intricate designs.

"To layout a pattern we generally use a walk behind greens mower (Jacobsen Greens King) to cut the infield turf as well as any outfield logos. When we do not have a logo in the outfield we will use a Jacobsen Tri-King to mow the entire outfield as well as foul territory. Another tool to help put in the pattern is a push broom. The push broom allows us to simply broom the turf the direction we want it which assists in designing the tight areas of a logo or a star."

*Warczak was promoted to MLB this winter; his response here was referring to his time as head groundskeeper for the Wisconsin Timber Rattlers, a Class A team located in Appleton.

DAVID MELLOR, Director of Grounds, Boston Red Sox

"We create patterns using line strings, irrigation flags and tape measures, and we step away or get above to see how our outlines are shaping up. We 'connect the dots' with a walk-behind greens mower's roller; it's the roller that etches in your design. While we use Toro Reelmaster mowers we also use Simplicity lawn and garden tractor.

The full width rollers on the free floating Simplicity mower deck bend in the grass design.

"What tools we use depends on how intricate the pattern is. Other tools we use could include push brooms, rakes, and small round carpenter rollers, which we push to bend the grass down and can then be picked up at the end of the pattern section where a larger piece of equipment can't turn around because of limited space. We use this when we are putting the stripes in the toes of the hanging sox logo and also when making the B STRONG pattern for 2013 MLB post season for example.

These are great for tight areas where there is no room to turn, and it can cut down on turf wear.

"For those on a budget, you can build your own roller too. Get some PVC pipe 4 to 10 inches in diameter and 24-36 inches long, fill it with concrete and connect it to an old mower handle. You can usually find one of those at a dealer's 'mower graveyard'. Then you can use electrical conduit pipe to extend the length and/or width and attach the roller to the mower handle. These are great for tight areas where there is no room to turn, and it can cut down on turf wear.

"If your field drains very well you also can use water pressure to bend in your design but you must take care to keep safety and playability your first priority. The first time we put in a unique design 3 days before a game we may also use a 1-inch hose with an adjustable nozzle, to help create a unique pattern. Always be careful to not create any safety or playability issues from using any water.

"We change our pattern every 7 to 10 days because we don't want the grass to start growing sideways affecting playability, and changing the pattern spreads out the wear. When we are considering patterns we can't work too far in advance though, because you have to take into account the weather, whether there's been or will be an external event on the field and so on. You certainly don't want to add any stress to the grass." ■

Continued from page 19

I had not damaged as many brain cells over the years as I had feared, so I applied and was awarded the fellowship and studied under Dr. James Beard. I found a copy of Turfgrass Science and Culture at a used bookstore, read it from cover to cover, and realized that I had a latent turf gene that was now being expressed.

ST: What about going to grad school as an older student?

Gilstrap: Well that I certainly was since I had just turned 40! The R. C. Potts Fellowship paid \$15,000 a year, and while it was a significant pay cut for me, I was able to afford my own apartment and a bicycle. All I did was study except for going to the Dixie Chicken for Friday happy hour. I approached grad school like it was a full-time job.

The fellowship also paid for up to 15 credits tuition per semester. So, I foolishly signed up for a full load my first semester. It was only later that I found out that most grad students only took two or three courses at a time. Anyway, after the first round of exams my highest score was a 76, so I really put the work ethic in play and ended up acing every course. Dr. Beard couldn't believe it and really took an interest in me after that, which still exists to this day and for which I remain most appreciative.

Dr. Beard retired in 1992, so I hold the illustrious distinction of having been his last grad student. You might say it was me that drove him out of academia.

ST: Do you want to tell us a little more about your other life before turf?

Gilstrap: Sure, at least what I wouldn't mind my kids knowing if they end up reading this. I was the lead singer in a high school combo. We played mainly soul music and some early Stones and stuff like that. Besides school dances we had a good job playing at Gulf gas station grand openings in around Arlington and Ft. Worth. I started banging on the guitar when I was going to UT in the late 60's and got good enough to play along at house parties.

I transferred to Tarleton State University since my parents had bought some land west of Stephenville. I lived in a run down farm house and really only traveled the 18 miles into town to attend classes and sell firewood I had cut. So, it was there that I started writing songs. I would go back down to Austin from time to time and sing them to anyone who would listen.

After graduation, I took a job with a seed company up in the panhandle. Feed lots and sugar beets were big business and the aromas masked each other so that it smelled like a cow had eaten a Hershey bar. One day I got a call from Austin informing me that Jerry Jeff Walker was going to record one of my songs called "Ro-deo-deo Cowboy," and that I should think about getting back down there and getting my own thing going.

So, I quit my job and did move back to Austin. Jerry Jeff did record my song, albeit 5 years later. Anyway, it was the heyday of the cosmic cowboy, and I also got to know pickers like Willie, Doug Sahm, Michael Murphy, B W Stevenson, Jimmy Dale Gilmour, Joe Ely, and all the musicians, roadies, groupies, and assorted hangers on. The blues scene was emerging also, so I got to know many of them, too, including the Vaughn brothers. Along the way, several more of my songs were

recorded by me and others, but I only had the one that got on a major label, so far.

In later years, I joined Alvin Crow and the Pleasant Valley Boys and we played all over Texas, Oklahoma, and Louisiana. Then, I took a job as Jerry Jeff's stage manager and got to travel to 38 states until that fateful cab fare got me off the road.

ST: How did you get the job at MSU?

Gilstrap: While at A&M, I thought I could use some of Beard's connections in France and Italy hoping to land a job as a grow-in superintendent. Because of his retirement, I got to teach a course for non-turf majors called Recreational Turf, which would later have as many as 1,500 students a year and would also serve as the model for my World of Turf course here at MSU. MSU was advertising for two positions, one was Environmental Education Specialist (which Dr. Frank Rossi, now at Cornell had just left) and the other was the lawn care program coordinator. I was invited to interview in February, which I thought would be good since, as a native-born Texan, I thought I needed to see how bad the weather really was up there.

I did a 2-day, intensive interview for the first position and gave a seminar. Then, I turned around and did the same thing for the second position, except this time I met with the lawn care constituency rather than the golf people. I was 45 by then, so I suspect they wanted to see how I held up for those 4 days. I even stayed over the following weekend since I wanted to get more of the feel of East Lansing.

I had expressed my desire to go on for a Ph D, and after the interviews were completed, Dr. Bruce Branham (now at Illinois) said that wouldn't be possible if I became the environmental specialist. This was because it was an extension-type job where I would be out working with the state's golf courses and wouldn't be able to complete my course work. However, if I was interested in the lawn care position, then perhaps I could start grad work after I got the program on its feet.

Earlier in the year, I had interviewed for a sales position with Milorganite and a teaching position at Horry-Georgetown Technical College in Myrtle Beach. However, each March here in Michigan, I think about whether I'd been better off in Myrtle Beach. I had standing offers from both of them, but they each said they would wait until I had interviewed in Michigan. In early March, I was offered the coordinator position. I thought of it as having been with the Rangers or Astros and the Yankees wanted me.

ST: And you didn't get your Ph. D. until you got to MSU?

Gilstrap: Yes, and it took quite awhile. Turf pathologist Joe Vargas was my major professor. He and Beard had a great friendship that started back when Beard was at MSU in the 70's. Back when I was in sales, I had developed an interest in diseases and fungicides, which were very expensive. And I knew I could deliver a higher-priced order with just my pickup. I knew from listening to Vargas give talks and then later interviewing with him, that he and Beard were very different in personalities and approaches toward life. So, in my mind I thought if I could synthesize some qualities from two giants in the turf industry, I might end up with something pretty unique. Vargas

agreed to sponsor me, and the fact that I didn't need a stipend or tuition paid for probably helped that decision.

During my first fall in East Lansing, I met Paula Manderfield. She was a district judge, and we were married within 2 years. We then had three children, with the last two being twins that required my wife to be on bed rest for the last 5 months of the pregnancy. So, I was caring for her and our 18-month-old daughter. Then, about a year after the twins were born, she decided to run for circuit court, in which she came in first against two incumbents and a sitting state representative. I had never been in a big campaign like that, but think goodness she had. It was a great experience, and I think my 2 years I'd worked as a roadie really helped our drive and perseverance.

So, all along I'm taking a course each semester and putting out treatments all summer and fall. Vargas's grad student ahead of me, Rob Golembiewski, now with Bayer, was in the process of documenting the first instances of dollar spot resistance to DMI fungicides and how to manage it. I helped him finish up and then started a study to try and determine how long it would take for the same resistance to develop in a virgin sward, so to speak.

After 5 years of spraying Banner at 4x rates four times a year, I did see enough of a shift that my committee approved me going forward with writing my thesis. After awhile my wife said she was tired of hearing about it and that I should either get the thing done or forget about it. With that blessing, I focused on my writing and often slept in my office when I was on a roll.

Looking back at the qualifying written and oral exams, and especially at the oral defense of the thesis, I think that getting through the process, particularly for a terminal degree, is a form of intellectual hazing. At any rate, I finally got my Ph D in 2007, and 6 months later I doubt if more than a handful of people in my department even knew what I had done it on. At any rate, I had finally joined the club, so to speak, at 59 years of age and I'm glad I persevered.

ST: What accomplishments in your career make you the most proud?

Gilstrap: My first answer has to be the successes of my students both on and off the field. Back in 1993, there were only a handful of people in sports turf that I knew had formal turf educations. So I began my quest of putting more of them into and onto the field. By the early 2000s, I was making the claim that MSU had more graduates in the industry than all the other states' programs combined. While this is no longer the case since nearly all the other turf programs have and have had at least some sports turf students, I will say that MSU still has the most out there.

Also, I volunteered to be the director of our dual degree program with four Chinese universities. I took it from its inception in 2003 through graduating its first class in 2008. It was our university president's idea and she chose turf to be the guinea pig. It's still going on and has more than 400 grads, some of which are actually working on golf courses in China.

Finally, I'm still continuing to research the bermudagrass that was brought to MSU by W. J. Beal as part of the nation's first turfgrass research in the 1880s. It's now spread throughout the campus and looks

quite good where it's mowed regularly and fertilized. The cultivar has been documented in the scientific literature as being the most cold tolerant. Through DNA fingerprinting, I've discovered that it is a clone. This means it has the potential to be patented, and I'm working toward securing the funding to do that.

ST: Do you have any major career disappointments?

Gilstrap: Sure I do, and not being able to recruit and graduate more students tops the list. My incoming class sizes ranged from eighteen to six. My graduating class size ranged from twelve to five. I had greater attrition with the larger groups because I wasn't giving all of them the attention they needed. With the smaller classes, I did my best to make sure none of them fell by the wayside. Also, I regret not leaving a program big enough that it necessitates its own coordinator, instead of the shared model it's going to.

ST: Is there something you wish you had done that you did not?

Gilstrap: I know I should have published more, but I was lazy in this regard since it didn't count much in my year-end evaluations because I didn't have a research appointment.

ST: What are your plans in retirement?

Gilstrap: First, of all I'm not retiring! My kids are 16, 14, and 14. So, how can I? Instead, I'm moving to a 9-month appointment with my primary duties being the teaching of an online course entitled World of Turf, which I designed and developed it for non-turf students across the campus. Enrollment numbers have grown remarkably since I shifted the format to an entirely online offering. In fact I have 300 students taking the course this spring.

ST: What about the program's future?

Gilstrap: Coordination of the sports turf program will transition to Dr. Trey Rogers, who has been in charge of the highly successful 2-year golf turf management program since the late eighties. Dr. Rogers has been a leader in sports turf research having pioneered and perfected the portable field concept. He has assured me and wants all of our graduates to be secure in knowing that the two programs will remain separate, and that the only change that may take place is that the commercial turf part of the program's name may be dropped, since the primary interest of its students lately has indeed been on the sports side.

ST: What's the greatest challenge facing the STMA as an organization?

Gilstrap: In my opinion, the STMA is conspicuously incomplete or it's fractured at best. This is because the MLB and the NFL have their own distinctly separate meetings, and for this reason many of them don't attend the STMA conference and consequently, some of them are no longer members, if they ever were. You don't hear about the superintendents who host PGA Tour events going off and meeting by themselves instead of attending the Golf Industry Show. So, until the STMA can figure out how to get as many of the elite practitioners as possible to participate, the organization can't be truly representative of the profession. ■

KOBS FIELD, MCLANE BASEBALL STADIUM,

Michigan State University, East Lansing



● **Level of Submission:** College
● **Category of Submission:** Baseball
● **Sports Turf Managers:** Jared Knoodle, CSFM and Amy Fouty, CSFM
● **Title:** **Jared:** Groundskeeper; **Amy:** Athletic Turf Manager
● **Education:** **Jared:** BS in turfgrass management; **Amy:** 2-year degree, turfgrass management
● **Experience:** **Jared:** I have worked in the sports turf industry since 2006. As a student at MSU I worked 3 of 4 years on campus on athletic fields at MSU. I was involved in the renovations of the baseball, softball, and soccer field while I was a student. As a student I went on an internship working for the San Francisco Giants. I was hired full time the next year and I spent 3 seasons as an assistant groundskeeper. I then spent a summer at Comerica Park working for the Detroit Tigers as a member on the grounds crew. Currently I have been working back at MSU as a Groundskeeper

1 since January 2012. I manage the daily operations of the Old College Field Complex on campus.

Amy: I have been a sports turf manager for 15 years: 5 years at the University of Michigan in charge of daily field operations for football and soccer, and 10 years at Michigan State in charge of athletic field management and field construction for the athletic department.

● **Staff:** We do not have staff that is just dedicated to the field. Jared is a seasonal groundskeeper who handles daily operations at our Old College field complex from March 1 through November 31. We have another seasonal staff person who assists Jared on baseball softball, soccer, and general grounds during that same time frame 40 hours per week as well, Marc Novicki. His responsibilities center on the soccer and grounds portion of the complex; Jared primarily handles softball and baseball.

Each year we have two sports turf management interns from our turfgrass management program at

MSU. This year Tom Ellis, 2 year turf, and Evan Rogers, 4 year turf, worked with Jared and Marc from March 1 through November 31 at the complex part time during the school year and 40 hours a week during the summer. In addition to this staff we have two student-athletes who work part time in the summer at the complex. These are typically baseball, softball, track, or soccer student-athletes. We have staff scheduled 258 days a year for the Old College field complex.

● **Original construction:** The site of Kobs Field was originally purchased by Michigan State's Board of Agriculture in 1900 for \$1,137.50. Kobs Field was dedicated in 1969 to John Herman Kobs, who served as head coach at Michigan State for 39 seasons (1925-63).

● **Turfgrass variety:** Kentucky bluegrass, perennial ryegrass, annual bluegrass.

● **Rootzone composition:** Sandy loam native soil; 75% sand.



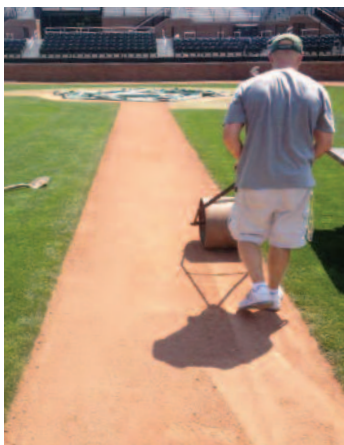
Equipment List

- Toro Workman
- Harper Field vacuum
- Toro Multi-pro 1200 sprayer
- John Deer Tractor 4300
- Toro Sand Pro (marketing agreement demo)

- Honda Rotary push mower
- Toro 3500-D Sidewinder (marketing agreement demo)
- Toro Greensmaster walk behind (bought used)
- Toro Procore 648 (borrow from golf course)
- Toro Procore 864 (demo)
- Ty-Crop topdresser drop style
- Tow behind drum roller

- Walking roller
- Gandy drop spreader
- Anderson broadcast spreader
- Field striper
- Edger
- Hand tools
- Two Bow Dry water removers

Kobs Field, McLane Baseball Stadium



WHY STMA SHOULD CONSIDER YOUR FIELD A WINNER?

Fouty: I cannot express how proud I am each day to work with an outstanding turf staff who has taken the lead in proper communication with coaches, staff, and players to create a “team” working environment for the success of the field as well as the team. In addition to this, the time, effort, and care taken each day by the staff and students to make Kobs Field the best in the Big Ten, makes me proud to be a part of our operation and help these young folks learn their trade for future success. We have continually strived to be the best with limited resources and staff and have the support and understand of our administration and baseball team during the 4 seasons of the year we experience during the Big Ten baseball season.

Knoodle: I feel that Kobs Field should be considered Field of the Year because of the progress we have made in the playing surface. As a student I was a part of the initial renovation and now 6 years later I lead the daily operations on the field. Although we do not have a full time staff even a quarter of a Major League Baseball facility I feel we manage the field and teach our interns, students, coaches, and players the same techniques used in order to give them the look and feel of playing on a Major League Baseball field. That being said, it takes a great deal of communication on behalf of myself, crew members and coaches to discuss the proper technique and daily tasks that need to be completed in order to keep the field playing at its very best.

With many games finishing and almost every practice taking place after work hours, it is very important that players help us by tarping the mound and home plate, dragging the infield and base paths. We hold a “groundskeeper hour” where I train the players and coaches on the way we like to maintain the field. Another reason I feel we should all be considered a winner is the extra time we take to pay attention to the “little things” that many spectators and players do not see but expect to be completed. We pack holes with clay everyday in the season, we nail drag and drag every single day, bases are cleaned after every game, dugouts are cleaned everyday, bullpen turf areas are cleaned everyday. These are just a few of the things we take great pride in. The main reason I feel we should be considered a winner is we bring a big league playing surface to college athletics with minimal staff.

SportsTurf: What channels of communication do you use to reach coaches, administrators, and users of your facility? Any tips for communicating well?

Fouty: Communication has been a critical piece to the puzzle for the success we have shared in the field's operations area. One of my communication

strategies is always, communicate early and often. I try to always plan for challenges and discuss them with those around me to come up with acceptable solutions prior to the problem. With a small staff and limited resources, organization in key to getting the job done professionally. There is so much technology with smart phones, computers, etc. Communication is fast and easy, my office is always on my hip.

ST: What are your specific responsibilities?

Fouty: Our area is responsible for maintaining all the outdoor athletic fields for the Athletic Department here at MSU. This includes a grass practice football field, an artificial practice football field, a stadium football field, a practice soccer field, a soccer game field, a softball field, and a baseball stadium. In addition to this we maintain the hitting and pitching building, indoor practice football facility, and various general grounds and landscaping in and around these areas. I am also involved in projects as assigned related to outdoor facilities which could be anything from field renovation, concert preparation and planning, to stadium maintenance projects.

Knoodle: I manage the day to day operations of the Old College Field Complex on campus which include a practice and game soccer field, softball field and baseball field. We also maintain all the general use turf areas and landscaping inside the complex.

ST: What tasks do you find most enjoyable?

Fouty: I enjoy the opportunity to work on a variety of projects and mentor staff and students whether they are turf students or student-athletes.

Knoodle: The most enjoyable part to me is being outside and being able to work with my hands and using teamwork with staff to perform and complete a task. I also enjoy being at MSU with a great turf program, allowing me to teach new turf students while they are in school.

ST: What task is your least favorite and why?

Fouty: My least favorite task would be all the paper work. I am not much of an office person.

Knoodle: My least favorite part or task is telling coaches and players due to weather the game will have to be canceled. We do not have many of these issues but whenever they come up it is a challenge to make everyone understand the safety of the player is always number 1 and the playability of the field is very important as well. Sometimes Mother Nature wins.

ST: How did you get your start in turf management? What was your first job?

Fouty: I have always loved sports and being outside. I began my career at a golf course taking care of clubhouse grounds 22 years ago. I worked on the golf side for 8 years and attended Michigan State University earning a Turfgrass Management degree in 1996. As time went on, I was given the opportunity to take care of the daily operations for football and soccer field management at the University of Michigan for 5 seasons. The ultimate opportunity to return to my alma mater came in December of 2003 when I was offered the Athletic Turf Manager position at Michigan State University for the Department of Intercollegiate Athletics. I have been here 10 seasons and take great pride and pleasure doing what I love for MSU. I became CSFM in 2004.

Knoodle: I have worked in the sports turf Industry since 2005. As a student at MSU I worked for 3-4 years on the athletic fields. I was involved in

Continued on page 49



▲ **2014 STMA Board of Directors L to R:** Jeff Salmond, CSFM; Jeffrey Fowler; Phil McQuade; Tim Van Loo, CSFM; Sarah Martin, CSFM; Andrew Gossel; Mike Tarantino, CSFM; James Graff; President David Pinsonneault, CSFM, CPRP; Bradley Jakubowski; Immediate Past President James Michael Goatley, Jr., PhD; President-Elect Allen Johnson, CSFM; and Doug Schattinger.

Meet the 2014 STMA Board of Directors

The 2014 Board of Directors took office January 23 during the STMA Annual Meeting, which was held in conjunction with the association's annual conference in San Antonio. STMA's new President, David Pinsonneault, CSFM, CPRP made two appointments, as required by the bylaws, as his first official duty of the office.

Elected to the board were:

President, David Pinsonneault, CSFM, CPRP, Town of Lexington, MA
 President-Elect, Allen Johnson, CSFM, Green Bay Packers, Green Bay, WI
 Immediate Past President, James Michael Goatley, Jr., PhD, Virginia Tech, Blacksburg, VA, Vice President Commercial, James Graff, Graff's Turf Farms, Ft. Morgan, CO
 Secretary/Treasurer, Jeff Salmond, CSFM, University of Oklahoma, Norman, OK
 Director representing Higher Education, Tim Van Loo, CSFM, Iowa State University, Ames, IA
 Director representing Parks & Recreation, Sarah Martin, CSFM, City of Phoenix, AZ
 Director representing the Academic category, Jeffrey Fowler, Penn State Cooperative Extension, Franklin, PA
 Elected-at-Large Director, Bradley Jakubowski, Doane College, Crete, NE

The Directors who are fulfilling their second year of their terms are:

Professional facilities category, Phil McQuade, Kroenke Sports Enterprise/Colorado Rockies, Commerce City, CO
 Schools K-12 Andrew Gossel, Covenant Christian High School, Indianapolis, IN

Those appointed to the Board include:

Appointed Director At-Large Mike Tarantino, CSFM, Poway Unified School District, Poway, CA
 Commercial Director Doug Schattinger, Pioneer Manufacturing, Cleveland, OH

Officers serve one year terms; Directors serve 2-year terms. STMA conducts its annual elections electronically in late November.

STMA'S Silver Anniversary Conference experiences record international growth

The Sports Turf Managers Association, 2,600 members strong, hosted the 25th annual Conference & Exhibition in San Antonio Tex. with nearly 1,600 attendees and 164 exhibitors from eight countries. The crowd included sports turf managers, academics, and other industry professionals from across the globe converging on a sometimes-icy but never boring San Antonio to celebrate the profession.

The 5-day event featured seminars, lectures, general sessions and exhibits from sports turf and environmental science leaders in 11 conference tracts: agronomic, construction / renovation, facility management, industry developments, pest control, professional development, safety, synthetic and water.

"Our annual Conference brings heightened awareness to the sports turf profession and the individuals who provide safe playing surfaces for millions of athletes every day," says **David Pinsonneault, CSFM, CPRP**, newly elected STMA President and Public Grounds Superintendent for the Town of Lexington, MA. "We hope the educational experiences and best practices shared throughout the week will be implemented in communities across the nation to enhance safety and quality in sports fields."

The Foundation for Safer Athletic Fields (SAFE), STMA's charitable foundation, raised more than \$30,000 during the conference through its Jan. 21 golf tournament at The Republic Golf Club; Jan. 22 "Casino Night" with close to 70 players; and silent and live auctions throughout the week. Proceeds benefit educational programs, scholarships and grants with the goal of enriching communities through safe, sustainable sports and recreation fields for all athletes. The golf hole in one sponsor was Carolina Green.

STMA Conference sponsors included Arysta LifeScience; Barenbrug USA; Covermaster; Diamond Pro; Hunter Industries; John Deere; Toro; and World Class Athletic Surfaces. A big thank you to all sponsors for their continued supported of the association and sports turf managers nationwide.

Next year's event will be held in Denver, January 13-16, 2015. Additional future sites include San Diego (2016); Orlando (2017) and Fort Worth, TX (2018).

Founders Award winners

Friday night's Awards Banquet was topped off with a presentation of the industry's most prestigious awards, STMA's Founders Awards, with a special guest: one of the founders, Dick Ericson, was on hand to say a few words about his time with a growing STMA and to co-present the award with last year's winner, Amy Fouty. Honored were: Dick Ericson Award – **Rich Watson**, Pine Hill Schools in New Jersey; George Toma "Golden Rake" Award – **Matt Tobin**, Pioneer Athletics; Dr. William H. Daniel Award – **Brad Fresenburg, PhD**, University



▲ **Conference attendees** enjoying renewed acquaintances. L to R: Tom Burns, Diamond Pro; Dale Getz, CSFM, Toro, and Amy Fouty, CSFM, athletic turf manager at Michigan State.

of Missouri; and Harry C. Gill Memorial Award – **Willis “Bucky” Trotter**, Sports Facilities Insights, LLC.

Dr. Rick Rigsby, keynote speaker

Dr. Rick Rigsby officially kicked off the conference in the opening General Session with a rousing, impactful speech about the virtue in pushing past the superficiality that can sometimes be prevalent in our “social media-focused” society. His talk was entitled “Making an Impact: Being the Best You Can Be” and he did make his own impact on all who were present and lucky enough to hear him speak. He celebrated the “behind-the-scenes” folks who make a difference, which sports turf managers do every day, and encouraged listeners to always make a mark in their own unique ways. Dr. Rigsby graciously remained after the talk to speak to attendees, shake hands and answer questions about his own remarkable journey.

Education

Education began on Tuesday with 2.5 hour Academy sessions and finished on Friday. Attendees were introduced to brand new technology in “New Trends and Technology in Sports Turf” and Amy Fouty, CSFM’s “Using Soil Moisture & Temperature Sensors as a Part of an Integrated Approach to Managing Athletic Fields.” Pest control sessions such as “Insect Control Update for Sports Fields – Current & Future Programs” presented by Dr. David Shetlar and “Managing Sports Fields without Conventional Pesticides” by Dr. Eric Lyons, gave the latest updates on Integrated Pest Management programs and what to expect for the upcoming year. Many sessions were

standing room-only, as attendees wanted tips and advice from some of the nation’s top professionals. In addition to a first class line-up of educational topics on sports field management, professional development sessions were also on the program to provide attendees education on personal improvement as well as improving workplace relationships and communication. Tim VanLoo, CSFM and Joel Rieker addressed relationships between different generations in “Bridging the Generation Gap in the Turf Industry.” Jerry Balistreri instructed attendees on how to read non-verbal communication in “Reading the Tells – Learning How to Read Body Language.” Other topical areas such as construction/renovation, synthetic fields, water, safety, agronomy, and facility management were covered as different tracks to meet the needs of sports turf managers across the country. STMA thanks the speakers that were able to share their knowledge and experiences to continue to help shape and grow the professionalism of the sports turf industry.

Congratulations, Indiana Chapter!

During the Chapter Officers Training session (COTS), the Indiana Chapter was formally (re)installed. The previous incarnation of the Indiana chapter folded in 2005 with less than 10 members. In 2013, it completed all of the processes to re-establish and now boasts a remarkable 127 members. Congratulations, Indiana Chapter!

President’s Award for Leadership

STMA Past-President Dr. Mike Goatley presented the 2013 President’s Award for Leadership at Friday’s Awards Banquet. In his remarks before announcing his selection, he said “This year’s President’s Award for Leadership recipient was the first Certified Sports Field Builder, and he will also proudly tell you that he is a CSFM. He is asked by folks like me on a very regular basis to contribute both professionally and financially to educational programs, field days, conferences etc. and he has always shared his experiences and his support over and over again. He regularly gives of his time and finances in support of numerous projects at all levels, but particularly goes above and beyond for lower budgeted high school and parks and rec facilities in what he delivers. I constantly cite him as a

resource when I am consulting with sports field managers when I tell them that this man certainly has a service or products that he would like to sell you, but he will not try to sell you anything. He has filled in the gaps for me far too many times to mention as a tremendous resource with vast experience in construction, renovation, and maintenance.

“Although I did not know it until I met him in 2008, this man also turns out to be a Hokie alum, even touting a football career at VT (although I don’t see his name on any of the flags flying above Lane Stadium).

It is my honor and privilege to recognize **Chad Price, CSFM, CFB**, of Carolina Green Inc. as this year’s recipient of the STMA President’s Award for Leadership.”

Student Challenge

Congratulations to all STMA Student Challenge participants for their exceptional performance on the 2014 exam, conducted at conference! The Student Challenge is presented by SAFE and founding partner Hunter Industries. Ten 2-year teams and 21 4-year teams competed for \$4,000 awards in each division.

2-year Competition: First place, **Mt. San Antonio College, Team 202**; second place, Kirkwood Community College, Team 201; third place tie, Kirkwood Community College, Team 204 and Mt. San Antonio College, Team 209.

4-year Competition: First place, **University of Maryland, Team 410**; second place, Virginia Tech University, Team 412; third place (tie), Purdue University, Team 419 and Colorado State University, Team 402.

The funds provided by SAFE are meant to benefit the turfgrass science programs at the winner’s schools. Use of the awards can include creating an Athletic Sports Field learning lab, purchasing athletic sports field specific equipment and products, or other items or projects approved by the STMA Student Challenge Committee. Funds are required to be spent before the next year’s STMA annual conference.

Grant & scholarship winners

All grants and scholarships were presented at the Awards Banquet, which took place this year in the Lone Star Ballroom of the San Antonio Grand Hyatt.

Zachary Avers of The Ohio State University was the winner of the 2013 Gary Vanden Berg Internship Grant. Avers interned at Emirates Stadium in London for the Arsenal Football Club.

Don Scholl, CSFM, superintendent of parks, sports fields & trees for the city of Tracy, CA won The Terry Mellor Continuing Education Grant, sponsored by Turface Athletics. This grant funds an STMA affiliated chapter member's attendance to the Conference and honors the importance of continuing education that Terry strongly supported his entire life.

SAFE's top scholarship in a 2-year program is named after Fred Grau, the first turfgrass extension specialist in the US. This year's Fred Grau winner was **Danielle Booth** from Mt. San Antonio College.




The SAFE undergraduate winner from a 4-year institution was **Evan Fowler**. He attends The Pennsylvania State University and, as the top scorer, received the James R. Watson Undergraduate SAFE scholarship sponsored by the Toro Company. Additional winners of SAFE undergraduate scholarships include **Josh Alleman** from Michigan State

University; **Josh Lenz**, from Iowa State University; and **oel Rieker**, from Iowa State University.

There were three graduate winners of SAFE scholarships: the top scorer was **Chase Straw** from the University of Georgia. He won the Watson Graduate SAFE Scholarship, sponsored by The Toro Company. The other SAFE graduate winners were **Kyley Dickson**, from the University of Tennessee and **Kevin Hansen**, from Iowa State University.

As a tribute to the Dr. Watson, Master of Ceremonies Tim Moore had everyone who ever received a Watson Scholarship stand to be recognized. Dr. Watson, a long-time agronomist at Toro, passed away in late 2013. The James R. Watson Scholarship program was established in 1998 in his honor.


Since 1989, STMA has hosted its annual convention at major cities across the U.S. including Daytona Beach, Fla. in 2013. Next year's event will be held in Denver, Colo. Jan. 13-16, 2015. Additional future sites include San Diego, Calif. (2016); Orlando, Fla. (2017) and Fort Worth, Tex. (2018). ■

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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):
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CTomSell@aol.com

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

Florida #3 Chapter (Central): 407-518-2347,
Scott Grace, scott@sundome.org

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, clayton.dame@hotmail.com or Brian Bornino, bornino@purdue.edu or Contact Joey Stevenson, jstevenson@indyindians.com

Iowa Sports Turf Managers Association: www.iowaturfgrass.org.

Kentucky Sports Turf Managers Association: www.kystma.org.

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

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.

Nebraska Sports Turf Managers Association: sphillips4@unlnotes.unl.edu

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

Sports Field Managers Association of New Jersey: www.sfmanj.org.

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

North Carolina Chapter of STMA: www.ncsportsturf.org.

Northern California STMA: www.norcalstma.org.

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

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

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

Ozarks STMA: www.ozarksstma.org.

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

Southern California Chapter: www.socalstma.com.

South Carolina Chapter of STMA: www.sc-stma.org.

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

Texas Sports Turf Managers Association: www.txstma.org

Virginia Sports Turf Managers Association: www.vstma.org.

Wisconsin Sports Turf Managers Association: www.wstma.org.

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the renovation of the baseball, softball, and soccer complex while I was a student. As a student I also went on an internship in San Francisco working for the Giants. I was hired full time the next year and I spent 3 seasons as an assistant groundskeeper for the Giants. I then spent a summer at Comerica Park working for the Detroit Tigers as a member of the grounds crew and returned to MSU to be the groundskeeper for baseball, softball, and soccer in 2012. I just became a CSFM in January 2014.

ST: What practices do you use to keep your infield skin in peak condition?

Fouty: We feel it is key to start with a good base, which we add plenty of conditioner preseason and nail drag, mat drag, roll, repeat a couple times. We then add conditioner as needed throughout the season. We try to keep it about 70% calcined clay, 30% vitrified clay for a great surface. Whenever we have an event i.e., practice, game, or camp we nail drag, mat drag and water first thing in the morning, and depending on time we may mat drag and water again right before the event. After the event we nail drag to again to get all the cleat marks and get us back

to level as best we can, followed again by mat drag and water. We also leaf rake edges after every event and broom every other and completely blow out edges with water two times a year. Usually right after the MSU baseball season and right before the fall ball season starts.

ST: What changes if any are you considering or implementing for the winning field in 2014?

Fouty: We are always striving to get a more consistent playing surface and we will continue to try new things if we think we can save some time or become more efficient in the way we manage and implement our management practices

ST: How do you see the Sports Turf Manager's job changing in the future?

Fouty: The job has, and will continue to, become more scientific and more professional. I would like to think that there will be a return to natural grass playing surfaces as field management gets better and construction of fields continues to get better. ■



Getting rid of your ryegrass overseed

Can you tell me more about getting rid of my ryegrass overseed? My fields will be used this spring but I have a break in play at the beginning of summer. What is good to use to get overseed out quick once play has stopped (May)? Why do we not use natural transition anymore?

North Carolina

It is still cold outside as I write this but it is a great time to be thinking about the health of your bermudagrass. Often when overseeded ryegrass looks so good in the spring, people cannot believe that we want to kill it to “make room” for the bermudagrass. Many turf users do not understand the complex relationship between the overseed grass and the base bermudagrass.

There was a time when overseeding consisted mostly of dumping huge quantities of annual ryegrass seed onto our bermudagrass fields. Back then overseed grasses were primarily coarse-textured, forage-based annual ryegrasses that had to be planted at high seeding rates so that competition for space would provide a finer texture turf. The combination of more immature plants and poor genetics (for turf use) resulted in a plant more susceptible to heat and disease. The result was often a quick dying stand of ryegrass. Then turf managers started using more resilient perennial ryegrasses for the better color and texture. Despite the name, perennial ryegrass was still managed as an annual.

With increased popularity of overseeding, plant breeders put great effort into developing darker, finer-textured grasses that were more heat and drought tolerant. It did not take long before perennial ryegrasses used for overseeding were not so susceptible to temperature and diseases and they began hanging around longer and longer into the summer, particularly in the transition zone. But for an overseed grass, we still

want it to perform like an annual, not a perennial.

Traditional cultural practices used to facilitate transition include reduced mowing height, increased fertility, verticutting, and topdressing with sand. These can help put stress on the ryegrass that can help facilitate transition, but they still may not be enough. So, it is now more common to use selective herbicides as a transition aid.

When I was still a faculty member in Florida, the late Dr. A.J. Powell told me that in the northern reaches of the transition zone, there is no such thing as natural transition from overseeded perennial ryegrass to bermudagrass. He said that no amount of nitrogen fertilization, verticutting, scalping, etc., would ever kill the ryegrasses. Over the past 8 years in North Carolina, I have experienced the truth in his comments many times.

In the upper transition zone, ideal bermudagrass-growing weather only last for about three months (June, July, and August) and any competition greatly shortens that period. So to maintain a healthy stand of bermudagrass, we must either omit overseeding or chemically remove the ryegrass in spring or early summer.

Various herbicides and plant growth regulators (PGRs) have been tried through the years to try to hasten transition. Several chemicals are currently on the market for reducing perennial ryegrass with no adverse effect on bermudagrass color or overall turfgrass quality. The products currently include Certainty, Katana, Kerb, Manor/MSM, Monument, Revolver, and TranXit. All of these products except for Kerb belong to the sulfonylurea family of herbicides. Kerb is by far the slowest-acting product of the group and Manor/MSM the next slowest.

While the products for transition have gotten better over the past 10 years, they are still not foolproof.

Depending on where you are located and timing of your events, most managers apply a product between mid-April (e.g., Florida) and mid-May (upper transition zone). Repeat applications may be necessary for complete control. The sulfonylureas are rate and temperature sensitive. So, higher-labeled rates and warmer temperatures (>65 degrees) will result in faster perennial ryegrass removal.

So even with selective herbicides, temperature is still a dominant factor facilitating transition, since it is responsible for the increased effects from the herbicides, natural decline of cool-season grasses, and the green-up of dormant warm-season grasses. One should never forget that for a smooth transition, we need the bermudagrass to green up before the ryegrass goes away.

This is important since once these products are applied, there is no undoing their damage to the cool-season grass. So, if your early spring turns out to be a late winter, then you can be left with thin bermudagrass (or worse, no bermudagrass) until it gets warm. Response from the sulfonylureas is usually seen within 14 to 21 days. It should also be noted that these products are not very effective at removing healthy annual ryegrass.

Naturally, there is an economic cost to using these products versus more natural methods. In the end, decision to use these products may depend on your location. In more southern areas, cultural practices typically result in a smooth transition. If you feel that the transition is taking too long, or you have too many “renegade” plants, you could apply a sulfonylurea product for late-season transition. If you are further north and have limited time to grow in your dormant bermudagrass, then one of these products can effectively reduce perennial ryegrass density with no adverse effect on bermudagrass. ■

BY DR. GRADY MILLER

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