

A man in a blue polo shirt, khaki shorts, and a white visor is crouching on a football field, using a white paint sprayer to apply a logo. The field has blue and orange turf with white yard lines. The background shows more of the field and the stadium seating.

# SPORTSFIELD AND FACILITIES MANAGEMENT **SportsTurf**

July 2015

## **BEST “SWAMP” IN THE US**

**COLLEGE FOOTBALL  
FIELD OF THE YEAR  
FLORIDA FIELD**

**ALSO INSIDE:**

**THE INTERVIEW:  
MARY OWEN**

**PROACTIVE APPROACH  
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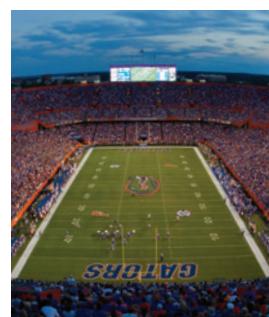
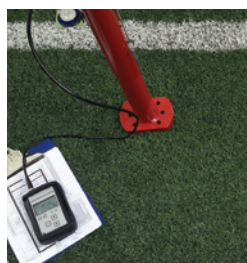
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### On the cover:

Field of the Year winner Jason Smith says: "Dealing with the high visibility of caring for Florida Field at Ben Hill Griffin Stadium begins with having confidence in and trusting our team. After being in this industry for 20 years, I've learned this is definitely a team effort. Whether it's summer time cultivation or finishing painting

for a big game, my crew always comes through bringing out the highest potential possible of Florida Field."



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# FOOTBALL AS WE KNOW IT IN TROUBLE?

**Eric Schroder**  
**Editorial Director**  
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**T**hough the best man in my wedding (20 years ago OMG!) and I live 650 miles apart we keep in touch regularly. Often, no matter the topics we cover in our mostly digital conversations, he ends with "When does football season start?" We, like most of you, love our football.

After his last day of finals in May, my 16-year-old son had 10 friends sleep over; all of them play one sport or another but the only boys I made conversation with were the football players. Who's replacing the tailback? How does the QB look? Can Brandon really play linebacker? (No, said Vinnie, with Brandon sitting beside him.) We love our football.

Last season a family friend's son was allowed by his mother to play football for the first time, as a high school freshman. The kid's over 6 feet tall and 200 pounds and he was a star on the freshman team playing tight end and defensive end. Not having ever played organized football before didn't seem to matter much.

But don't tell that to some of the coaches and parents involved in the TV show "Friday Night Tykes," which follows teams of 6 to 11-year olds in the Texas Youth Football Association, where weight restrictions are lax. The show depicts a win-no-matter-costs mentality in which smaller kids are pitted against larger kids in practices and coaches were filmed encouraging players to hurt opponents. If

your spouse doesn't want your child to play youth football, don't let her or him watch this show!

I've heard sports talk radio guests predict the game won't be the same as we know it now in less than 20 years because the injuries, especially concussions, will increase even if safer tackling techniques and other measures are instituted. Getting your head banged around hundreds of times ain't good for the noggin, they say, and moms everywhere will start saying "no" to their kids' playing the sport.

Add to this the growing amount of news surrounding brain injuries coming out of the National Football League, some of it tragic as in the Junior Seau and Dave Duerson cases. Were you as surprised as I was when Chris Borland of the San Francisco 49ers quit last winter at the age of 24? Maybe football just wasn't fun for him any more or, more likely, he spent a year around the velocity of the league's big bodies, read up on former players' brain traumas, and decided enough was enough.

When there is so much money available at the professional level, for every player who steps away there will be 100 ready to step in his place. But I wonder how Borland's decision, and more evidence of brain injuries from retired players, might change the game we love. It's possible in the future there won't be high school football as we know it now. Flag football, anyone? **ST**

*Eric Schroder*

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# SAFETY MUST INCLUDE PLAYING SURFACES

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**O**f all the endeavors that sports field managers try to pursue, there is one word that tops them all. It is safety. Our ultimate goal is to provide an athletic surface that is safe for the interaction that will occur between it and the athletes.

Our world has seen many improvements in the pursuit of safety. What was once considered the norm is no longer acceptable in many aspects of our lives. My son certainly has been able to get me to buckle up consistently, when as an adolescent driver I considered that ... well, optional. It seems funny and sort of sad to me when he tells me that most of the playground games we used to play at recess are outlawed in the pursuit of safety.


The pursuit of safety touches us every day in all aspects of our life. How many organizations have someone on their staff to help assess the workplace and try to make sure things are done as safely as possible? Ask yourself this question: If your child needs some type of protective equipment for their sport of choice will you spend the extra money for the item that has a so-called "higher" safety rating?

Why then, in our industry, is it so acceptable to think of the playing surface as an afterthought? Why do so many institutions approach the playing surface with the mindset "as cheap as possible" rather than the "best and safest possible"? The way we think about our playing fields must change. Just as a football helmet affects the

safety of an athlete, so does the surface. We must start the conversation with youth coaches, athletic directors, school administrators, and school boards that the field surface cannot be viewed in the same fashion as the fence that surrounds it. It has a definite impact on the quality of the game and the safety of the athletes.

How a community views a sports field needs to be at the front of the conversation rather than at the end. When viewed as an integral part of safety to the sport, the appropriate decisions can then be made as to how to best proceed when constructing new fields, renovating existing ones, or dedicating the proper resources for maintenance.

The professional sports field manager—members of the STMA—are uniquely positioned to add value to these discussions and offer insightful ideas about how to provide sports fields that achieve an adequate level of safety. While a standard definition of what is a "safe" playing field may not completely exist today, it may possibly exist in the near future.

In the meantime, the professional field manager certainly knows what isn't safe. It is why institutions that host sporting events from the youth level to the professional ranks should invest in hiring a qualified sports field manager and supporting them with the proper resources to do their jobs. Only then will the field take its rightful place as part of the equation to improve safety. 



# THE *SPORTSTURF* INTERVIEW: MARY OWEN

*Editor's note:* This month in "The SportsTurf Interview," we visit with Mary Owen, Extension Specialist, Turf, University of Massachusetts, Amherst. Owen is one of the most well known and respected turf extension specialists in the country and has a long association with the Sports Turf Managers Association.



► **Mary Owen** presenting at a recent UMass Turf Research Field Day.  
Photo by Ben Barnhart.



**SPORTSTURF:** What are the most important changes you've seen in sports turf management in your career?

**OWEN:** The explosion of technological innovations must head the list here, as it most likely would relative to most other industries.

The expansion of the professional sports turf managers' network around the country and even across the globe has been phenomenal, in no small part due to the leadership and tone set by STMA. All members of the industry are benefitting in meaningful ways, as are related professions including builders, coaches, athletic directors and others.

Research specifically targeting sports turf has burgeoned. A lot of very sharp minds at universities and elsewhere across the country are tackling difficult problems, finding solutions that can be used from small town school departments to international level professional sports. Look at the breadth of topics being investigated: from determining nutrients' impact in integrated management of pests, to developing models for managing municipal and school fields with no pesticides, to evaluating synthetic surfaces for optimum human and environmental safety, to breeding new and improved cultivars of grasses specifically suited for sports turf, to use of sophisticated lighting systems to increase turf potential. And more!

The federal government has given a nod to turfgrass as

**"I do have a synthetic surface pet peeve: people who use the word 'turf' to generically describe artificial surfaces. I just wish they'd cut it out."**

an important component of our environment and deserving of financial support, thanks to the tireless efforts of the National Turfgrass Federation (NTF) and many in the industry. Turfgrass is now considered an eligible entity in the Specialty Crop Research Program enabled in the Farm Bill. This is significant. It means that the door is now open for turfgrass researchers across the country to compete for federal dollars. In the past few years about \$15 million has been distributed in research grants and other awards for turfgrass work. The development of the National Turfgrass Research Initiative (NTRI), the funding of turfgrass research staff at USDA Agricultural Research Service (ARS) labs in Beltsville and Utah, and more recently the implementation of the Grass Roots Initiative in partnership with the National Arboretum are all very positive developments. These efforts show a commitment shared by the public and private sectors to enhance and communicate the



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benefits of turfgrass to the world. STMA, I am happy to note, is a major sponsor of the NTF as well as the Grass Roots Initiative.

**SPORTSTURF:** Working in a university extension program you meet a lot of turf managers. What are they saying are the biggest obstacles to overcome for them to be successful today?

**OWEN:** Some of the biggest challenges turf managers are facing today: overcoming the mistaken public perception of turf as being less than environmentally desirable; adapting to regulations, some reasonable and others not; being able to offer a level of compensation competitive enough to attract and keep qualified, passionate people in sports turf; and, perennially stretched and strained budgets. Sports turf managers are facing these challenges head-on, both as individual, knowledgeable professionals and in dedicated teams, making good headway in some areas and determinedly persevering even when the odds seem stacked against them.

**“We must continue to encourage sports turf managers to be professionals of the highest caliber, and can demonstrate this particularly through the Certified Sports Field Manager program.”**

**SPORTSTURF:** How has social media impacted your work?

**OWEN:** Social media has opened up incredible new avenues for communication, collaboration, networking, career building, education and more. I believe the potential for information exchange is enormous, but will readily admit that I am less than fully engaged. Some challenges for me: to quickly and definitively sort the chatter from the substantial; to keep messages brief and speedy without sacrificing accuracy; and to be in control of the medium and not allow it to control my workday.

**SPORTSTURF:** How do you think the natural turf vs. synthetic turf issue will play out over the next decade?

**OWEN:** I believe that the controversies and problems will be sorted out.

Personally I prefer natural grass. There is no completely adequate substitute for it. The sports turf industry must continue to look for innovative ways to keep natural grass playing surfaces as dense, safe fields. Looking beyond the edge of the horizon to see what is new, what is adaptable, what works—like using fraze mowing for rapid renovation—should be high on the priority list.

Yet there are certainly situations in which using a well and thoughtfully designed artificial surface make good sense. When a synthetic field is suggested, a complete and realistic comparison should be done with a comparable natural grass field so that decisions are made based on facts not feelings. Human safety and environmental protection should always be key

priorities. STMA has been a leader in providing information to assist with that process. And STMA will continue to need to provide good education for sports turf managers in the construction and care of all kinds of fields.

All that said, I do have a synthetic surface pet peeve: people who use the word “turf” to generically describe artificial surfaces. I just wish they’d cut it out. Let’s use the word “turf” for what it is, the real thing.

**SPORTSTURF:** What should be the aim of the profession and industry in the next 10 years?


**OWEN:** We must continue to be leaders by example: in the protection of precious and limited environmental resources, particularly water and soil; in bettering the health of our communities by providing safe playing areas for athletes of all ages and abilities; and by being optimistically skeptical about new ideas and innovations while embracing those that show promise. We must continue to build strong partnerships amongst researchers, educators, practitioners and businesses, in both the public and private arenas. We must continue to encourage sports turf managers to be professionals of the highest caliber, and can demonstrate this particularly through the Certified Sports Field Manager program. We must continue to grow the SAFE Foundation for its championship of scholarship, to ensure that bright, energetic and passionate students are encouraged and rewarded as they become our next generation of leaders.

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

**OWEN:** Through STMA I have had the opportunity to meet and work with a host of intriguing, clever, committed and otherwise terrific people, many of whom have become lifelong dear friends and every one of whom has been a teacher to me in one way or another.

I am especially grateful to those sports turf managers and business people who are out there doing the hard field and management work every day, and who, with their enduring and good humored patience, answer my many, many questions and basically keep me grounded in reality. Their generosity has made me, I believe, much more effective in my work as an Extension Specialist and educator.

**SPORTSTURF:** What are your passions and interests outside of work?

**OWEN:** What do I like to do outside of work? Tend my kitchen garden, help my husband, Tom, with his retail farm business, and delight in our wonderful grown children and the rest of our family. I read real books, the kind with pages that can be turned; histories of the great American presidents and selected 20th century authors have been my recent choices. I love to go to yoga class, and would very much like to say that I practice every day but that would be stretching the truth, instead of myself, just a bit too far. And believe it or not, I enjoy mowing the lawn! 



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# PROACTIVE APPROACH KEY TO FIELD SAFETY

■ BY TOM SERENSITS AND DR. ANDY MCNITT

**A**s the dawn of another football season is upon us, it is once again a good time to put field safety at the forefront of our minds. While player-to-player collisions and injuries receive the most attention, the playing surface's role in injury risk should not be overlooked. An understanding of potential field risks along with regularly inspecting your playing field is an important step in protecting the athletes using your field.

As you are likely aware, the NFL requires all fields to be tested and inspected before every game. Field hardness (Gmax) along with a number of other surface characteristics must be

measured and reported to the league office each week. Although it may be impractical to test your field before every game, a routine field testing and inspection program is the first step in a proactive approach to field safety.

## INSPECTING & TESTING SYNTHETIC FIELDS

Gmax testing is one of the most important components of a field testing program. The easiest and most economical method to measure Gmax is with the Clegg Impact Tester. This is the same device used in the NFL. Other devices such as the F355 can also be used.

In the NFL, all fields, both natu-

ral and synthetic, must be below 100 Gmax in all locations when tested with the Clegg. If hardness levels begin to approach 100, steps are taken to lower these values. For synthetic turf fields, this is often accomplished by installing additional crumb rubber infill.

Routine infill depth measurements, especially in high-use areas, can alert you to developing issues before they become significant. You can obtain your target infill depth range from your turf manufacturer. If you see infill levels drop below the lower limit, infill should be added. In addition to improving safety, this proactive approach can help prevent or limit large scale field remediation projects required once significant problems have fully developed. Infill depth



can be measured with a \$20 fire-proofing depth gauge available from several online merchants.

As part of the field inspection process, the condition of seams should be checked regularly. Properly functioning (non-separating) seams, even when visible, do not pose an elevated risk. However, if the seams begin to fail and separate, they create potential tripping hazards.

In addition to inspecting the seams that go across the field, there are also seams at each inlay that require inspection. It is our experience that seams at inlays tend to be the most problematic and require the most attention. If seam repairs are needed, be sure to follow field manufacturer recommendations.

An effective field inspection should also ensure that the field is free of any foreign objects and debris such as garbage, leaves, etc. Blowers and sweepers specifically designed for synthetic turf can help clean the field before a game.

Goal posts should be checked ensure they are properly anchored. Goal post pads should be installed for all games and practices.

Be sure to inspect sideline areas for obstacles such as trash cans and benches. These types of items should be far enough away from the playing surface that a player has a chance to stop before coming into contact with them. A minimum buffer zone of 25 feet is commonly recommended.

If the field has been used for any non-football events, such as a graduation, walk the field and look for nuts, bolts, screws, nails or any materials that may have been used in construction of the stage or a similar structure.

The amount of metal debris that is sometimes found on fields can be both surprising and dangerous. In the NFL, field managers must go over the field with a large magnet after events such as concerts to remove metal debris. Magnets capable of being pulled by utility carts are available for purchase and are a useful tool if your field regularly hosts non-football events.

## INSPECTING & TESTING NATURAL TURF FIELDS

Just as with synthetic turf fields, routine Gmax testing should be included in an inspection and testing program on natural turf fields. If elevated Gmax levels are found (such as over 100 as measured with the Clegg), steps should be taken to reduce surface hardness.



Surface hardness on natural turf fields is largely influenced by the level of soil compaction and water content. As a result, cultural practices are critical for maintaining acceptable Gmax levels. Offseason field improvements such as incorporating a quality compost into the soil via hollow tine aeration can not only improve surface hardness, but also improve overall turfgrass health. Information on compost selection and application can be found at: <http://plantscience.psu.edu/research/centers/ssrc/research/natural-fact-sheets>. However, in-season remediation practices must be done with care as to not affect surface stability.

NFL field managers have been experimenting with in-season needle-tine aeration and deep-tine units set to penetrate only a few inches to slightly raise the surface. These techniques have been fairly successful for short-term reductions in surface hardness without sacrificing playability, but care should be taken when performing these practices. If in-season cultivation becomes too aggressive, the surface playability may suffer due to reduced footing.

A proper field inspection also includes scouting for holes and depressions throughout the field. An uneven surface can increase injury risk and any holes or depressions found should be filled in as soon as possible using sand and/or soil. When time allows, the area should be preferably sodded if it is large or, at a minimum, the area should be seeded as soon as possible.

Also, be on the lookout for any debris and/or foreign objects such as nails used to string out the field during the field painting process or other maintenance activities.

If the field has an in-ground irrigation system, check that all sprinkler heads have fully retracted below the surface as designed and that any quick-coupler or other valves have been checked and valve caps have been properly placed in the closed position. A granular material should be used to fill around irrigation heads level to the surface.

Just as with synthetic turf fields, goal posts and sideline areas should be inspected, and potential obstacles should be moved away from the immediate sideline area to create a buffer zone. After non-football events, the field should be checked for metal debris as previously described in the synthetic turf section.

## FIELD INSPECTION CHECKLISTS

A field inspection checklist is a great way to be sure to not overlook any elements of your field inspection. It also provides a record that the field was inspected should an injury occur and the condition of the field be questioned.

You can develop your own checklist or use one that has already been created. The Sports Turf Managers Association (STMA) has published a thorough field checklist that is available on the STMA SAFE Foundation website ([www.stma.org/the-safe-foundation](http://www.stma.org/the-safe-foundation)).

The SAFE Foundation has also produced several videos detailing how to conduct a proper field inspection. In these videos, Ross Kurcab, former sportsfield manager for the Denver Broncos, provides excellent field inspection examples. These videos can also be found on the SAFE Foundation website.



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## FIELD SAFETY RESEARCH UPDATES

*Injury Research.* There are now more than 25 studies comparing injury rates on infill synthetic turf and natural turf, including eight specifically for football. The majority of the football-specific studies reported slightly higher injury rates on synthetic turf compared to natural turf. Soccer-specific studies generally found a similar injury rate on both surfaces. Our Center for Sports Surface Research at Penn State's website ([ssrc.psu.edu](http://ssrc.psu.edu)) includes links to each of these studies.

While the playing surface tends to receive the most attention and blame for lower extremity injuries, researchers are now finding that shoe type can also be a major contributor to injury. For example, aggressive cleat patterns often produce high rotational traction, which can prevent the shoe from releasing from the playing surface during pivoting maneuvers. As the shoe "sticks" in the turf, stresses are transferred to the lower extremities, thus increasing the risk of injury.

At Penn State, we have tested rotational traction levels of more than 40 shoes on both natural and synthetic turf. While we have seen only minimal differences between natural and synthetic turf, the differences between shoes are quite large. Although there is still not enough information to say what a "safe" traction level is, comparisons among shoes can be made and used to make informed decisions. Our traction database is available on our website: <http://plantscience.psu.edu/research/centers/ssrc/traction-database>

*Surface Temperature on Synthetic Turf.* At the Center for Sports Surface Research, we have yet to test any synthetic turf configuration that can effectively cool synthetic turf temperatures for the length of a typical game while also being able to withstand field use and environmental conditions. We have tested various materials that retain water for extended periods of time; however, each material failed under simulated field use and/or ultraviolet light or would be considered unplayable. Our website includes a page dedicated to surface temperature research. <http://plantscience.psu.edu/research/centers/ssrc/research/synthetic-turf-surface-temperature>. On this page, you will find links to studies we have conducted as well as links to other published studies related to surface temperatures on synthetic turf.

*Health and Environmental Impacts of Synthetic Turf.* Recent news reports have increased the attention on the health and environmental impacts of synthetic turf. A large number of studies related to these issues have been conducted by universities and government agencies. Our website provides links to each of these studies and, according to feedback we have received, field managers have found this to be a valuable resource when questioned by concerned parents, administrators, etc. <http://plantscience.psu.edu/research/centers/ssrc/research/synthetic-turf-health>

Tom Serensits is manager of Penn State's Center for Sports Surface Research; Dr. Andy McNitt is professor of soil science – turfgrass and Director of the Center for Sports Surface Research, as well as the coordinator for Penn State's turfgrass science undergraduate program. Tom and Andy are also co-owners of A. McNitt & SerenSoil Testing, LLC





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# RAIN CAN'T STOP SURE-FOOTED SOONERS

■ BY STACIE ZINN ROBERTS

**T**he rain came down in buckets. Jeff Salmond, CSFM, director of athletic field management at the University of Oklahoma and a 20-year member of STMA, stood on the sidelines and watched as the Oklahoma Sooners football team took the field at Memorial Stadium in Norman. But the rain kept coming. "It wasn't a light rain, or a misty rain. It was a down-pour. Water was pouring out from the stands," Salmond recalls. It rained the entire game.

Still, despite the punishing weather conditions, Oklahoma freshman running back Samaje Perine scored five touchdowns that November day last

fall, and rushed for a record 427 yards to lead the Sooners to a 44-7 win over the Kansas Jayhawks. Perhaps nearly as impressive, after the game the field (featuring Latitude 36 bermudagrass), looked virtually untouched.

"The field held up great. It was awesome," Salmond says. "There were no ill effects from the weather. After we

mowed it, you couldn't even tell we'd had a game."

He attributes the field's performance under such dramatic conditions to several factors: The field has an excellent drainage system. Because it is sand-based, wet weather doesn't create a sloppy mess, which helps with durability and playability. He also credits the grass.

**The field has an excellent drainage system.** Because it is sand-based, wet weather doesn't create a sloppy mess, which helps with durability and playability.





# John Mascaro's Photo Quiz

John Mascaro is President of Turf-Tec International

*Can you identify this sports turf problem?*

**Problem:** Brown parallel lines

**Turfgrass area:** Football practice fields

**Location:** Cincinnati, Ohio

**Grass Variety:** Patriot bermudagrass overseeded with ryegrass

**Answer to John Mascaro's Photo Quiz on Page 29**



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"I think the resiliency of the grass, and what we had been able to do to it in the 3-4 months prior from the initial grow-in, helped. That's what we prepare our fields for, to be able to withstand something like that. The integrity of the field, the drainage, and all work put into the field, it's really a tribute to our staff and the job they do," he says.

Field preparation includes solid tine aerification "to help water and moisture to get through, to get the water off the surface as fast as possible."

Salmond says their fertility program is also an important factor. "We have backed off of synthetic fertilizers and moved more to a carbon-based fertility," he says. "The grass does well on its own. What we're trying to do is keep the grass growing and going. It is doing well with this kind of fertility plan. So far, that's what we've seen."

At Oklahoma, Salmond oversees a crew of eight full-time professionals and three part-time student workers. Together, they maintain Memorial Stadium and the John Crain Soccer game field, as well as baseball and softball fields, the track facility and tennis courts. Latitude 36 was chosen for the soccer field and football stadium, Salmond says, "For its durability and cold tolerance, and its early spring green up to

compete with overseeded perennial ryegrass." Native soil football practice fields are grassed in the center of the fields with NorthBridge bermudagrass.

Another consideration of the grass selection, Salmond says, was the close proximity of the sod farm, Riverview Sod Ranch, just 2 hours away in Leonard, OK. "Latitude was grown on a sandier soil at the farm that closely matches our field. The NorthBridge was grown on heavier soil" which is similar to the soil at the football practice fields.

In Norman, deep in the heart of the transition zone, overseeding is critical to maintain a thick, green stand of turf during the winter months when the bermudagrass goes dormant. Also because of the location, where weather can change from cold to warm in an instant, properly timing an overseed program can be a challenge.

"Last fall we overseeded when we saw temperatures were coming down to help provide good germination and a good stand. We got great germination. However, temperatures went back up and so the Latitude took back off with a flush of growth," Salmond says. "So for the rain game in November, we were playing on semi-dormant bermudagrass with a light cover of ryegrass. But it provided excellent footing."





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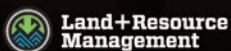
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Since the Latitude offered such a “dense mat layer,” next year he intends to verticut a bit more aggressively before overseeding again.

Transitioning out of ryegrass overseed back to bermudagrass is usually tricky business. Yet, this past spring, the first year the football and soccer fields transitioned out of the ryegrass back to the Latitude 36, was almost stress-free.

“It has provided us with the fastest transition we have ever seen. Other than a color difference between the perennial ryegrass and Latitude bermudagrass, there has not been a lack of significant cover to tell we have switched between the two grasses during the transition,” Salmond says.

He’s also happy with the overseed results of the NorthBridge Bermudagrass on the practice fields.

“So far it is the only grass that we have been able to use that will actually help take the overseeded ryegrass and provide enough cover for the ryegrass to germinate and sustain through a rigorous practice schedule for football, and provide a protective cover for the bermuda in the early spring,” he says. “We like both grasses, with the Latitude 36 being a bit darker green than the NorthBridge.”


In the 1980’s and early 1990’s, the field at Memorial Stadium had an artificial turf surface. In 1994, it was switched back to natural grass.

“I am a believer in the best and safest surface for our student-athletes to help them achieve championships,” Salmond says. “A well-maintained and manicured natural grass surface can provide the best playable and safest surface out there. Most athletes would agree a well-kept natural grass field is the preferred surface to play on.”

He adds, “It benefits the environment. Natural grass plays a vital role in our oxygen and carbon dioxide.”

Salmond began his career as an assistant field manager for the Baltimore Ravens, followed by stints at University of New Mexico and Northwestern University. His wife, Loida, also works at the university and their three children (with a fourth on the way) all spend time on campus “growing up being field and gym rats

“Growing up, I was a Brian Bosworth fan. I never thought that my career would bring me to Oklahoma. I have been blessed from having great mentors and friends in the turfgrass industry who have helped me along the way. I am thankful that our athletic director, Joe Castiglione, gives us the tools and resources for our athletic field management department to be successful,” he says.

Salmond’s reaction to the fact that both Latitude 36 and NorthBridge were developed by the turfgrass research program at Sooners rival Oklahoma State was diplomatic. “One thing they can do,” Salmond says, “is breed good grasses.” 

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# LOGO CREATION 101

■ BY MIKE HEBRARD

**A**fter 20 plus years of painting logos for sporting games and special events, I have reinvented myself and my techniques several times. At first I went by the “Guess and By Golly” method where I would look at a drawing and paint marks, connect them and create a letter or logo. Most of them were deemed too small and detailed for recognizable visual impact. Then I started projecting the image with an opaque projector on a paper woven mesh (Saxolin X, recyclable paper netting used to cover chip filled railroad cars), which is distributed to landscapers for erosion projects. I noticed that they would measure and paint dots to create a

planting pattern using different colors indicating which plant went where. Being made of a woven brown wax coated paper, it retained the paint. But then I had to relay it on the grass by simply repainting on the paper pattern, which was hard to do with straight lines.

There are some simple techniques I have used over the years depending on what works best at the time or what I have available. In the old days, school opaque projectors were used to manipulate the desired image onto a wall that required moving the projector back and forth to fit the size needed. Sometimes your images might not be sharp. Nowadays with the new computer technologies you can hook

up your laptop to an LCD projector and have options to zoom or keystone the image without having to move anything.

You might think a 10-foot image is big, but once it is laid out onto a field it is dwarfed by the large amount of grass you want to paint. Also for you to project an image large enough you need to have a taller wall such as in a gym or warehouse, requiring ladders and the ability to darken the room to be able to see the projected image. Once the image size has been projected, you can hang a sheet of visqueen, or what I prefer, a poly tarp with grommets. By carefully cutting half-moons on the straight and curved lines you will create a usable pattern to spray dots in the exposed cutouts.

Poly tarps come in a variety of sizes, colors and thicknesses. I like white which because it is easier to mark. If the logo is only used a couple of times, I go with a thinner mil, but it is bigger.



For a progressive program, I go with a much thicker mil. An outdoor store has a variety of bags that I buy to store the stencil. I use luggage tags that contain the laminated logo to attach to the bag. I also include a colored laminated image in the bag to aid in painting. Once the stencil has been carefully cut, the first application will leave the color that corresponds with the cutout. Be careful when using inverted aerosol cans to mark the cutouts on clear visqueen as the propellant will cause the edges to curl, losing your acuteness.

Another method I have used is having a sign shop print out the logo on inexpensive paper (usually in 5-foot widths) and then taping the sheets together completing the pattern. After marking the center lines on the tarp, center the paper pattern onto the tarp and tape it to the tarp. Using a sharp box cutter cutting through both the paper and tarp, you will need to rotate and replace your blade a couple of times to get a clean cut.

If you have a logo or image already established on turf or floor, take the clear sheet of visqueen and tape and trace it with a sharpie, and repeat the aforementioned process of cutting out the half-moons. It helps to duct tape the corners to allow for a screwdriver to punch through to hold it down. Also, don't leave the sheet down too long or the clear plastic can burn the grass blades.

When short on time, it may be necessary to freehand the logo on a predetermined location. I have developed a PowerPoint slide that has a grid for both landscape and portrait. There is a grid option for the slide but you can't print it. So I draw a vertical line and copy and paste it for each line and repeat the process horizontally. Then group all the lines (they will then be frozen in that slide), import the image and enlarge it so that the top or side aligns with one of the grid lines. Then use the option "send image to back."

Now when the page is printed the lines will appear over the image with the grid lines being 1 inch apart. I then use an engineer's ruler and decide what scale to use. You can make the grid into 2 foot or 8 foot squares, whatever fits your requirement. I also like to make the centerlines red for quick reference to measure from. It helps to laminate the page or put it into a clear plastic sheet protector and bring a portable table to measure off of. Usually I string out the centerlines and set one for the top and bottom of the image.

Since you will be basically free handing the image onto the grass, you might as well freehand it on a tarp if the logo might be used again. If you have a simple block letter, I usually mark the corners of the letter and box it in with string. This will allow you to make any changes before painting the incorrect line. I also use spray chalk to allow for change in measure-

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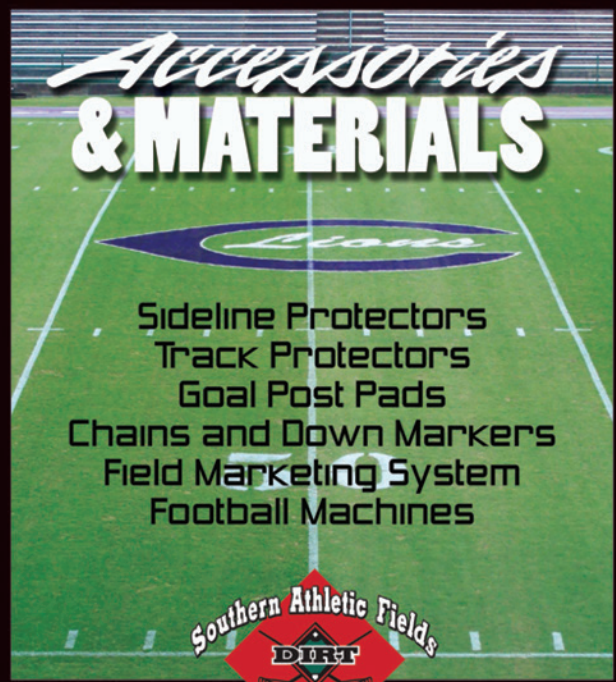
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ments and removal with a simple wet rag or water hose. Spray chalk is available in some basic colors: white, yellow, red and blue.

For end zones I try to get the text printed in the actual font in a larger scale. Mark the center of the end zones and string top and bottom of the text. I try not to go larger than 20 feet. Once the start of the first letter is established, set a tape measure at the starting point at the top and bottom. With the engineer ruler measure and mark the start and stops of each letter and other edges. We use a 1½-foot square tubing to the height of the letter and then use our “Disc” to paint an outline on all of the edges. Then fill in the letter.

I use two different methods when laying out and painting text. The first method is what I refer to as a text box. Usually the letters are maxed at 3 feet high. I get a piece of flat cardboard, cut out the desired height and width, and by using an inverted aerosol can I can freehand a letter with a basic font staying inside the cutout, using the edge of the cardboard as my straight edges. For bigger text, 6 feet or so, I make a frame out of ¾-inch PVC with elbow and create a square or rectan-

gle. We use the “Disc” with a tip size on the airless that has the desired width of spray and basically do the same process.

The second method was created by luck. I went to pick up new football numbers from my sign company that routed them on HDPE 1/8-inch thick. They mentioned to me that they made a whole alphabet set for a track painter and had all of the positives they cut out! “Do you want them?” they asked. Yes! With a little duct taping we now have the entire 3-foot high alphabet that allows us to quickly spell out a slogan. We usually trace the letter with a contrasting color and then fill it in with another color. This gives us a professional looking font. I use my football numbers when doing dates for a logo with numbers 0 – 5, and had the sign company make a 6, 7 and 8 (the upside down 6 can be used for a 9). Also many number kits come with a G that can be used for “GO” with the 0. **ST**

*Mike Hebrard is president of Athletic Field Design, Clackamas, OR, [www.athleticfield.com](http://www.athleticfield.com).*





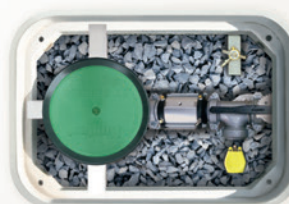
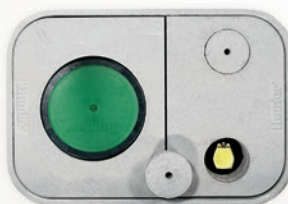
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# LATEST RECS FOR MAINTAINING SYNTHETIC TURF

■ BY JIM CORNELIUS, CSFM



**L**et's begin by acknowledging that synthetic fields are NOT maintenance free and have more characteristics of a natural turf field than is believed. No matter what anyone says, synthetic turf does require routine maintenance. Second, infill material will gradually disappear from the field as it is carried off by players, wind, rain, snow removal, routine maintenance, equipment tires, etc., and since it is a crucial element of a synthetic field, missing infill will need to be replaced.

## REPLENISHING INFILL MATERIAL

Most synthetic turf sports fields lack adequate infill material (whether the infill is all crumb rubber or a rubber/sand mix). On average, an athlete or end user will carry off two to three pounds of infill material during a playing season. Without infill support, the turf fibers bend over too far under traffic and then break off prematurely. Also, ultraviolet rays from the sun are extremely damaging to synthetic fibers. By maintaining a proper amount of crumb rubber, you can help prevent the fibers from folding over, which minimizes the amount of each fiber that is exposed to the sun and reduces fiber breakdown from ultraviolet rays.

To calculate your field's infill-replacement needs, you first need to first determine how much infill your field currently has. Measure the amount of crumb rubber in a variety of locations within the field boundaries (there are several tools you can use to this and most are easy to find; a 3-legged measuring device is recommended and your turf manufacturer can assist in where to purchase, or you can use a Starrett gauge, depth gauge or something as simple as a pen or pencil with a tape measure to determine how much infill is in the turf).

If your turf is 2-1/4 inches tall and

IMAGE ©ISTOCKPHOTO/MICHAEL KRINKE





you have less than 1-1/2 to 1-3/4 inches of infill, you need to add more and since there is no standard and each manufacturer will recommend different levels, my experience is to maintain infill to allow 3/4-inch or less of exposed fibers above the infill level.

In each square foot a 1/4-inch of infill is equal to approximately 0.55 pounds of crumb rubber.

Most rubber/sand infill systems will not need additional sand since sand tends to stay stable within the turf. On rare occasions, sand may be lost due to operations (snow plowing) or torrential downpours that cause flooding; in those circumstances, sand will need to be added to the mix.

## GROOMING THE FIELD

Grooming the field is an essential maintenance task. We highly recommend using a groomer designed specifically for synthetic turf, such as the GreensGroomer or the Wiedenmann units.

When using any groomer, adjusting it so that it only lightly touches the fibers will provide the best results; do NOT lower the entire weight of the groomer onto the turf UNLESS you want to level out uneven spots or move the crumb rubber to fill an area such as a lacrosse goal crease. When “tickling” the fibers with the groomer’s brushes, the intent is to stand the fibers up to minimize their lay-over from use.

We recommend that the field be groomed every 300 to 350 hours of use; some internet articles suggest 400 to 500 or more hours, and much depends on your facility’s available manpower. At minimum, the field should be groomed several times during the highest use periods and less often during the down times (if there is such a thing).

## CLEANING THE FIELD

Trash and debris are a constant nuisance. Timely removal is important to keep them from becoming ground into the infill material, causing removal problems later on.

Although largely overlooked, chewing gum on the field should be removed as soon as possible. Most chewing gums today never harden, and with the intense heat in the field, gum becomes gooey and eventually spreads across the turf surface. To remove gum, use either ice cubes or a freezing spray agent to harden the gum, chip it off and remove it.

When we deep-clean our clients’ synthetic fields, our equipment most frequently removes items such as sunflower seeds, pistachio/peanut shells, candy wrappers, cigarette butts, wire ties from nets, buttons, fabric scraps, cleats, bobby pins, jewelry, screws, nails, staples, paper clips and rocks (from broken stone bags that are used to weigh down goals and equipment). These items—plus dust, dirt, pollen, body skin cells, human hair, leaves and pine needles—can end up embedded in synthetic fields, where they remain for much of the life of the field.

It’s astounding, actually, how quickly debris can accumulate, unseen, on a synthetic field, causing several problems. Such debris can create safety hazards for the athletes (particularly sharp metal items), abrade the synthetic grass fibers and degrade the crumb rubber (which, in turn, increases the field’s hardness),

reduce water infiltration by clogging drainage pores, and develop an organic layer that is conducive to the proliferation of bacteria, mold, moss, fungi and insects, as well as the germination of weed seeds.

Special deep-cleaning equipment with HEPA-filter vacuums can remove this type of debris from within the turf. Rain, snow, sleet and hosing will not wash it out.

Invariably, field managers ask if synthetic fields need to be disinfected. For the best answer, my suggestion is to review the research pages of Dr. Andrew McNitt at Penn State (<http://crop-soil.psu.edu/ssrc/sportsturf-scoop>).

## CONTROLLING WEEDS

Weeds can exist and thrive in synthetic turf, especially if the field is not deep-cleaned regularly enough to prevent an organic layer from developing. Also, if your turf is surrounded by bermudagrass or any other creeping grass variety, be prepared because the stolons and rhizomes of such grasses tend to seek their way into and under the synthetic turf. Synthetic-field surfaces reach optimal growing temperatures before the surrounding turf does, providing a perfect greenhouse effect for creeping varieties to spread. After they start spreading beneath the synthetic field, they will find the drainage holes and send their shoots upwards for the sunlight.

The resulting sewing-machine effect makes removal of creeping grasses quite difficult, and in most cases, they will need to be chemically treated (as approved by the turf manufacturer) to kill them off. The simplest solution is to prevent them from growing in the first place; this can be done either by pulling them when young, spraying Round Up or an organic product designed to kill young weeds and grass, and then being vigilant so that you can act quickly if you discover an encroachment.

## PATCHING WORN AREAS

Pay particular attention to maintaining adequate infill material in heavy wear areas. Synthetic fields wear just like natural turf, except that you can’t grow the fibers back in once they are gone.

For instance, lacrosse players can destroy a goal crease in as little as one year if the turf is not maintained. The infill material gradually gets kicked or shuffled out, and then the fibers take a beating and break off quickly without the support of the infill material. Before you know it, you’re left with a big black area (which is the backing for the synthetic turf), and now it’s time to patch it. You could replace the area with either a piece saved from the initial installation, or you could cut a piece from outside the playing area so that it matches in color and type. Still, though, it won’t be a perfect match because the fibers in the patch piece will not have had as much wear (so the “nap” won’t be the same).

In addition, to make a patch in a synthetic field, you will need special materials, and your local home improvement or hardware store does not carry them. Don’t use Gorilla glue, “liquid nails,” styrene bonding agents, and/or drywall screws or framing nails for repairs, since they are not designed for synthetic turf and may later become a liability nightmare. Instead, contact the manufac-



turer or a reputable service company to handle making the patch.

## PAINTING THE FIELD

Painting may or may not be needed on these fields, depending on whether or not the painted areas (lines, logos, etc.) were inlaid during installation. If you need

to paint, use only a paint product that is approved for synthetic turf. It seems that every year a new synthetic turf paint debuts, so do your homework; look at each company's history, and get recommendations from other turf managers with synthetic fields. In case you later need to remove the paint, ask the supplier

whether it can be done, how it is done, what it will cost, how long it will take and whether you will need special equipment and chemicals. Also ask if the product has been endorsed by any synthetic turf manufacturers and whether your turf's manufacturer is one of them.

If you have to paint, try to do so at times other than during the heat of the day. Also, removing lines works much best at night or early in the morning (when the turf is the coolest); otherwise, the chemicals will evaporate long before they start to work, and this will only cost you more time and materials.

## DAMPING DOWN STATIC

Static on a synthetic field is common and can increase with humidity and (sometimes) field age. If you need to combat this, you can do so with one of several household products. Liquid Tide detergent and liquid fabric softener both work well when sprayed on the turf.

## GMAX TESTING

Finally, unlike with natural turf, we can't see what is happening underneath the surface of a synthetic field. ASTM has recommended that synthetic fields be tested annually to determine their hardness in G force (better known as Gmax). Although some turf managers do not believe this is necessary, I can assure you that it is an important tool, much like soil tests with natural field (see page 12 in this issue for more on this).

If you don't test every year, you have no data to determine what has occurred over time.

If properly maintained, a synthetic sports field will provide years of use and play for all users. Just be aware that they do require regular care. If you have a concern, don't hesitate to ask a peer or your contractor for an answer; doing so can keep you from making a mistake that could significantly shorten the life of your field. **SI**

*Jim Cornelius, CSFM, is manager of the Pro Services Division of Fisher & Son Co., Exton, PA, [www.fisherandson.com](http://www.fisherandson.com).*



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# John Mascaro's Photo Quiz

Answers from page 17

John Mascaro is President of Turf-Tec International

As you may have guessed, these brown parallel lines are tire tracks. This NFL practice football field is Patriot bermudagrass overseeded with ryegrass. The field directly next to this field is also Patriot bermudagrass; however it is not overseeded with ryegrass. The Sports Turf Manager applied a Sulfonylurea herbicide to the bermudagrass field to control *Poa Annua* weeds and to clean up ryegrass in the non-overseeded field. After the application, someone with a utility vehicle decided to take a shortcut across the sprayed field and continued across the overseeded field, tracking the Sulfonylurea herbicide across the ryegrass. A few days later, the damage appeared and remained visible through the winter months. The Sports Turf Manager tried to mask the lines with another light overseeding, however this area is a high traffic area for the defensive line and the seed was trampled as soon as it germinated. Once the springtime came, the bermudagrass came out of dormancy and the lines disappeared.

*Photo Submitted by Darian Daily, Head Grounds Keeper at Paul Brown Stadium in Cincinnati, OH.*



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](mailto: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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# STMA DEVELOPS TURFGRASS SCIENCE CURRICULUM

■ BY KRISTEN ALTHOUSE

**T**he Sports Turf Managers Association (STMA) has developed a Turfgrass Science Curriculum. The goal of the curriculum is to build a solid foundation in the science and practices of turfgrass management so students can successfully care for a turfgrass surface. The curriculum introduces students to the many benefits turfgrass provides, career opportunities available in the turfgrass industry, and the science behind turfgrass management.

Two versions of the curriculum have been developed. The first version is designed for secondary agriculture education programs. The curriculum provides agriculture instructors with lessons to teach secondary students about the turfgrass industry. It was developed so it could be easily implemented in the classroom regardless of teacher experience and background. Each unit includes complete lesson plans, PowerPoint presentations, worksheets, individual and class projects, quizzes, and hands-on learning labs (indoor and outdoor). The curriculum was developed to provide agriculture educators

with lessons that could supplement any secondary plant science curriculum.

The units can be used to enhance the plant science curriculum or replace other units in the plant science curriculum. The units should be used as a whole in the order they are presented to provide the most benefit to learners. The content builds on information learned in each unit and culminates in a final project. In addition, the curriculum meets the requirements set forth by the Pennsylvania Department of Education and can easily be adjusted to meet the requirements of other states' Departments of Education.

The second version of the Turfgrass Science curriculum has been developed as an online course. The online tool provides self-paced learning opportunities that can be utilized as a refresher or for training individuals new to the turfgrass industry. Agriculture instructors, sports field crew members, parks and recreation employees, and others new to turfgrass science will benefit from the online curriculum.

Unit 1 provides introductory information on careers in the turfgrass

industry and community, economic, and environmental benefits of turfgrass. Unit 2 introduces students to turfgrass plant growth and development, anatomical features, and identification of different turfgrass species. Adaptations of turfgrass species are also covered. Unit 3 assumes students already have a basic understanding of soil science and provides more in-depth information on soil requirements for successful turfgrass growth. Unit 4 addresses all of the major cultural practices necessary for healthy turfgrass growth, including mowing, fertilization, irrigation, aeration, topdressing, and pest control. Unit 5 ties all previous information together with turfgrass establishment. Successful establishment cannot take place without a firm understanding of turfgrass species and adaptations, soil requirements, and essential cultural practices.

## CURRICULUM IN THE AGRICULTURE CLASSROOM

If implementing the curriculum in a secondary agriculture education program, all of the instructional materials are provided for each lesson. To help achieve the goal of practical application, each lesson is set up for students to learn foundational information, participate in an activity, and review the material. The total length of the curriculum is 27 days, but can easily be lengthened with the use of optional activities.

Lesson material is provided in the form of lecture, question and answer, and discussion. Students are encouraged to interact, collaborate, and discuss the



## Curriculum Overview

The curriculum and associated lessons are set up to provide basic knowledge in the core areas of turfgrass science. The curriculum is made up of 5 units:

- Introduction to Turfgrass Science
- Turfgrass Growth and Development, Anatomy, and Identification
- Turfgrass Soils
- Turfgrass Cultural Practices
- Turfgrass Establishment



IMAGE © ISTOCKPHOTO/BOBBIEO





**"I used the Turfgrass curriculum in my horticulture class this year which turned out to be great! The curriculum is easy to follow and includes handouts, PowerPoints, and labs for the teacher and student. Students loved the lessons where they could relate the material to career and real world applications. This curriculum enhances any horticulture class within career and technical education."**

*— Nolan Payne, Miami-Yoder School District*

information presented in each lesson. Activities are provided to allow students to delve more deeply into the information. Activities include hands-on labs, demonstrations, and projects. Many of the activities take place outdoors. Therefore, the best time for the curriculum to be implemented in the classroom is in late spring (April-June) or early fall (late August-October) when both warm and cool season turfgrass areas are actively growing (rate of growth is dependent on climatic location). Lessons conclude with a review of the material and question and answer sessions between students and the teacher.

#### ONLINE CURRICULUM

The online curriculum is aimed toward individual and crew training. The material appeals to various learning styles

including visual, auditory, and hands-on. Students are engaged in the content through the use of interactive activities, self assessment quizzes, videos, critical thinking exercises, and high quality photos, diagrams, and illustrations. The lessons are easy to follow and complete in short time settings. The course is ideal for entire crew training sessions.

STMA encourages agriculture education instructors and turfgrass professionals across the country to consider this curriculum. The curriculum is designed for students to learn and succeed and advance the professionalism in the turfgrass industry. Please visit STMA's website (<http://www.stma.org/curriculum>) or contact Kristen Althouse, STMA's Education Manager, for any additional information ([kalthouse@stma.org](mailto:kalthouse@stma.org)). **ST**

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# PUBLIC SPEAKING BOOT CAMP

■ BY JERRY BALISTRERI

**A**s a professional speaker with more than 30 years of experience, I am frequently asked to train folks on how to do public speaking. Did you know that within my first sentence I offered three distinct types of speaking: professional speaker, training and public speaking? Here is the difference between the three:

A trainer is an instructor of techniques/skills and content on a specific

subject. Trainers are typically paid a fee by a company, association or college.

A public speaker is someone who speaks in public and often is not paid for his/her appearances. They deliver speeches that promote a particular cause, company, or organization.

A professional speaker is paid a fee for performances by a company, association, or a college.

Many folks use these titles interchange-

ably, yet they are distinctly different. There are different types of speeches: persuasive, instructional, motivational, etc. Knowing the type of speech you will be giving will be advantageous in preparing for that speech and will be covered later.

## OVERCOMING SPEECH ANXIETY

Let's start with what most speakers and trainers fear: speech anxiety. There are two types of speaker anxiety, situational and trait. Situational anxiety is caused by factors in a specific situation; trait anxiety is something you bring with you. Speech anxiety is normal. Even veteran speakers have speech anxiety to some degree. The trick is to keep the anxiety manageable. Remember, no audience wants a speech to be a dud. They are on the speaker's side. Another thought that may help with your preparation and anxiety would be to consider that every speech you give is an opportunity for you to showcase what you know and have to offer others.

## TIPS TO MANAGE SPEECH ANXIETY

- Think of a very funny event in your

## Knowing your intended outcome of the speech

can also be a great way to help you organize your thoughts and content for the speech.

◀ Jerry Balistreri



life. Relive the event in your mind. It will start to bring you thoughts of joy, laughter, etc. Laughing reduces stress.

- Oxygenate; breathe deep. The more oxygen you getting into your system the more calming effect it has. Deep breathing slows the heart rate and lowers tension. One researcher found that using deep breathing can lower our feelings of anxiety by up to 15%.

- Go to the room earlier to see the lay of the land. Get familiar with the surroundings.

- Test and be sure all AV is working properly.

- Listen to music especially soothing music places you in a more relaxed state.

Avoid alcohol and caffeine as they tend to increase blood pressure causing tension.

- Secure a glass or bottled water. One never knows when dry mouth may occur, so you will be prepared if it does.

- Check your appearance in the restroom prior to going "on stage".

Greet people as they come in the room. This keeps you active and you start to meet new friends and learn names and faces.

- Visualize a person you admire (not an immediate family member). Chances are you admire them, in part, because they are a good communicator. Think about how they communicate. What level of confidence and poise they project. Dwell a few minutes on their style.

- Positive imagery, also called visualization or mental imagery consists of you imagining yourself speaking confidently. You become more confident, just as you would if you had actually given a successful speech. Researchers have found positive imagery to be an easy to use and to have a long-term effect.

## SPEECH PREPARATION

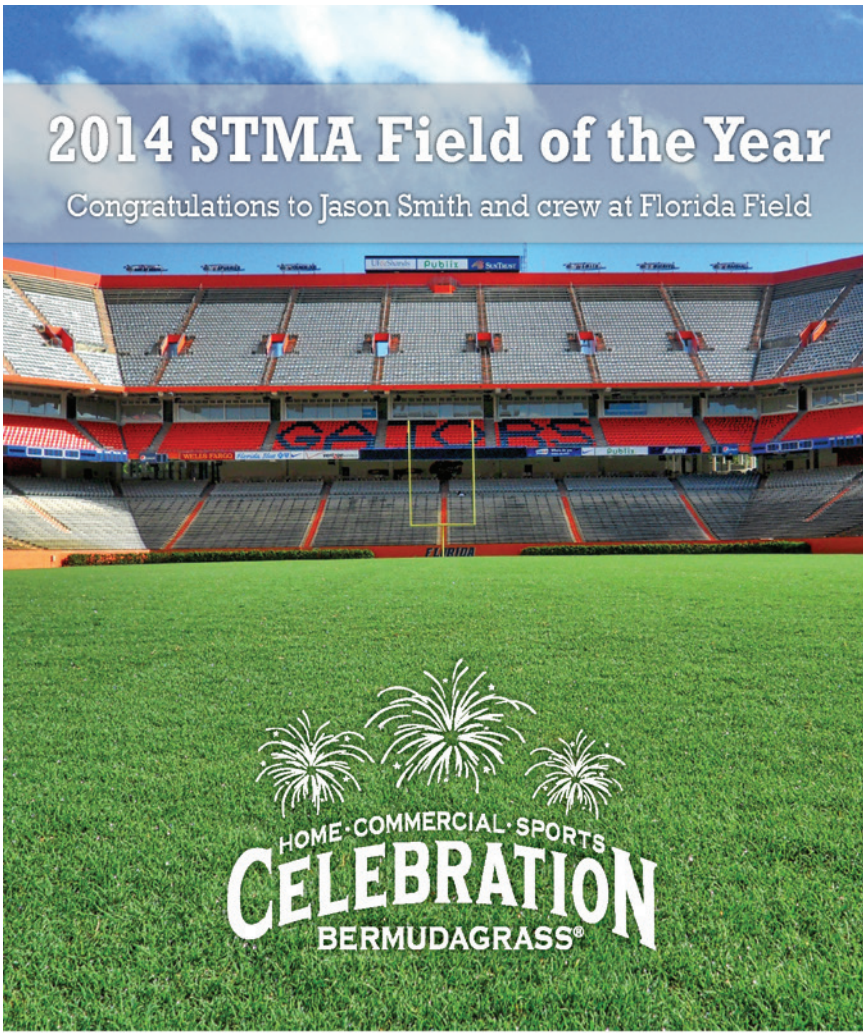
Recall there are five (5) various types of speeches: Thinking of your topic (content) of your speech, choose the speech type you believe best fits your content. Knowing your speech type will help shape how you prepare your speech. Also ask yourself: "What do you hope to accomplish as a result of your speech?" Do I

want to teach something, praise someone or something, share personal experiences, make people laugh, or rally support, for example?

Knowing your intended outcome of the speech can also be a great way to help you organize your thoughts and content for the speech.


Research the facts surrounding your topic. Your speech should be relevant and your understanding of the topic should seem natural. Before you write the speech, become comfortable with the information. Find out what other people are saying about your subject matter.

Not all presentations will or should



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follow the same format, but a tried and true method used to assist in the creation of an outline is to think of the speech as “putting pieces of a puzzle together.” Start by placing all the various pieces and parts of the speech on a piece of paper, as they come to your mind. This task is simply to brainstorm and get your ideas on paper. As you look at the random topics on the paper, a title for the speech may start to emerge as well as a sequence or order and structure to the topics.

If you need help in putting structure to the content, try this tried and true method to organize content: Tell them what you’re going to tell them (opening); tell them (body of the speech); then tell them what you told them (closing summary).

Keep it simple. This is called a “rough” outline for a reason. Include main points and sub points you want to cover. Indicate sources where you collected information, and make note of content you need to research. Update the outline as you collect new research and content.

## PRACTICING

There is an old adage in the real estate business. It indicates the most important thing in real estate is location, location, location. In keeping with that theme, I would offer the most important thing in speech delivery is to practice, practice, practice. I cannot emphasize enough the value of knowing your content inside and out. Doing so will bring confidence to you to deliver a great speech.

The opening of your speech has three goals: Grab the audience’s attention; preparing them for something yet to come; and identifying yourself as an expert in your field. Don’t start out by giving “housekeeping” or administrative details. Do not start by saying, “How nice it is to be there.” These approaches are old hat and passé.

Having a polite speech opening is a fine technique, but if you want to fire up your presentation and audience, open with a “grabber” or “hook” consider the following:


- **The Big Promise.** Making a hard to believe promise shakes people out of their slumber.
- **The Rest of the Story.** This technique is where you share a story and get to the climax or highest point of intrigue and say, “I’ll tell you what happens later” and people will be hanging on your words because they don’t want to miss what you will be sharing at a later time.
- **The Shocker.** Making a shocking statement that grabs attention. Statistics are often used as scary information. Think about your speech topic and see how many scary statistics you can gather. Using 2-3 scary statistics in your introduction will get the audience’s attention.
- **The Imagine Question.** The imagine question initiates and prompts thought, excitement, and dreams.
- **Using Humor.** Using humor can be tricky. Use humor that does not make the audience the butt of the joke. Use humor that does not isolate or segment a portion of the audience. Use humor that involved profanity or coarse language.

Don’t insult your audience. Keep clear of ethnic, religion, politics, and sexuality jokes. Don’t apologize if the joke bombs. Move on.

## THE CLOSING

The closing should be a summary of what you told them. As simple as that sounds, it is a good way to end as it signals the presentation is over. Although this type of ending is acceptable, it lacks impact. Planning for a powerful closing should be given as much emphasis as the opening and body of the presentation. It would be a shame to have put so much thought and energy into your presentation only to have your closing fizzle out and be lack luster.

Ways to end your speech with impact:

- **The Bookend close;** refer back to your opening anecdote or quote and say, “We have arrived, now, where we began.” This is a good place to summarize your key points.
- **The Challenge close;** challenge the audience to apply what you have told them. Taking action or applying in some way the content you presented can be shared by saying, “Let us turn from spectator into participant.”
- **Repetitive close;** finding a phrase and use it in cadence like drummer, building to an ending. Example: “Engineers cannot build it. Lawyers cannot litigate it. Judges cannot adjudicate it. Politicians cannot legislate it. Only you can make it happen!”
- **The Title close;** give your speech a provocative title that makes your message memorable. Then use the title in your closing to stir the audience to think and reinforces the presentation. Think about writing the closing first to better construct a title that can be used.
- **The Callback close;** refer back to a story, quote, or anecdote you shared earlier in your presentation. Make your closing revolve around that story, quote, or anecdote.
- **The Movie close;** make a reference to a well-known movie. For example, concluding a speech on the call for a new product, and the need to leave behind old products that have been used for years, a reference is made to moving on, being bold, and taking risks. One could reference, “This is the final frontier, boldly go where no one has gone before, and seek new worlds,” referencing “Star Trek, the Movie.”
- **Quotation close;** as the name implies, this closing uses a quote to capture the audience’s attention. If you are ending a speech on the topic of change and people, you could end with Gandhi’s quote, “Be the change you wish to see in the world.” 

*Jerry Balistreri, BS, MS, MEd, DTE is an ASTD Certified Trainer, professional speaker, trainer and author. [balis@acsalaska.net](mailto:balis@acsalaska.net); [www.readingthetells.com](http://www.readingthetells.com)*



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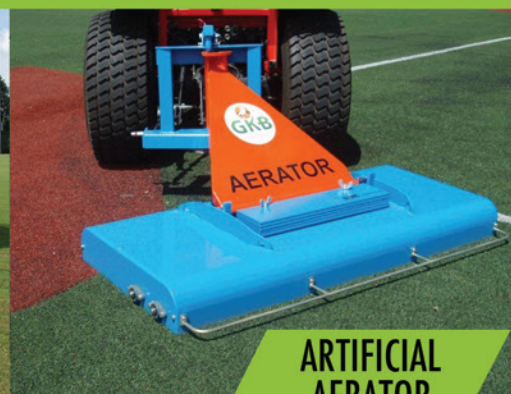
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# SMALL-TOWN SPORTS COMPLEX HAS BIG-TIME DRAINAGE SYSTEM

*Editor's note: This article was supplied by SCA Communications, North Baldwin, NY on behalf of the Plastics Pipe Institute.*

**D**ue to the expectation of today's sports enthusiasts, the growing trend is for every sports complex to have a storm water drainage system. Youngsville, LA, with a population of 8,100, is one such town.

The Youngsville Sports Complex is a 70-acre complex that opened in May 2014. Costing approximately \$16 million, it was funded with a dedicated 1% sales tax, approved by Youngsville voters. The complex has six soccer, four softball, and five baseball fields, 10 tennis courts, a 1-mile long walking path, fully stocked fishing pond, a playground, plus concession stands, shops and facilities for festivals and corporate events. First-year attendance was projected at 500,000. The complex next month will host the 2015 PONY Baseball Mustang World Series with teams from across the US, Mexico, the Caribbean, and Asia/Pacific.

The use of corrugated high-density polyethylene (HDPE) pipe on the site

reduced the cost for the drainage system portion of this publicly funded project. Large diameter corrugated HDPE pipe along with more than 500 catch basins were used to construct the system.

"We are certainly seeing expansion of the trend to provide underground drainage to community sports facilities," said Tony Radoszewski, president of Plastics Pipe Institute, Inc. (PPI), the trade association representing all segments of the plastic pipe industry. "Players, management, owners and fans have always wanted a way to get water off the field quickly. In the old days, the only way to prevent rain from getting on the field was to roll out the tarp, but that would often kill the grass. Or for local fields, the games were just cancelled, and many times the field was unplayable for several days." Underground drainage systems were developed that would collect and move the water. Sometimes these pipe systems even have a vacuum to speed up the process. Yankee Stadium, for example, is also equipped with a fan

system that draws water into the system and can also be reversed to provide airflow for quicker drying and promote better root growth.

"Following the success at some of the most venerable pro-sports stadiums," Radoszewski continued, "local fields such as Youngsville put in what is basically the same underground drainage system. The nearby town of Broussard with a population of 8,600 broke ground in October for its own sports park, similar to Youngsville's complex. These are the fields that everyone dreams about, and these communities are making them a reality."

The pipe used at Youngsville is made with at least 40% recycled content (Advanced Drainage Systems, Inc.). More than 23,800 linear feet of the pipe in diameters ranging from 10 to 48 inches was used on the project; it meets ASTM F2648 standard specifications and will support H-25 live loads. Design engineering firm, C. H. Fenstermaker (Lafayette, LA), selected HDPE pipe

based on price, shallow burial depths, ease of installation, long life, and the recycled content of this particular product.

"Most times the fundamental concept for a sports complex facility is that drainage be handled in a conservative fashion," explained Dax Douet, P.E., engineering director for Fenstermaker. "Too many times I have seen facilities that are at the minimum slope requirements or don't provide enough drainage so both players and spectators walk through mushy ground and mud. I was determined not to have that happen. We have a lot of slope everywhere on our fields. We designed the Youngsville drainage system for a 10-year storm event."

"We truly feel that today, the goal is to use sustainable construction materials that also provide a top performance level," said Daniel Currence, PE, director of engineering, CPPA Division, PPI. "Sustainability certainly includes longevity, but also the environmental impact of material production and the use of recycled materials. HDPE pipe production is a very clean process, capable of reusing materials without sacrificing performance."

"Corrugated HDPE pipe produces a much smaller impact on the environment than traditional pipe materials like reinforced concrete or corrugated metal. Carbon footprint is the most widely accepted measure of the environmental impact of activity or production in terms of greenhouse gases produced, measured in units of carbon dioxide. Reinforced concrete pipe, according to a Cardiff University (UK) study, has a greater carbon footprint than HDPE pipe. Also, HDPE pipe made with recycled material helps projects to qualify for LEED certification."

## PLAYING CATCH WITH WATER

Basins were another key to the rapid water drainage. Douet elected to use Nyloplast structures that combine a ductile iron grate with a PVC structure.

"The Nyloplast catch basin has about a 6-inch sump underneath the pipe connection," Douet explained. "On a sports complex like this, they will apply a lot of fertilizer on these fields, and I thought it was a great idea that each of these catch basins had a sump, which basically allows sediment and runoff fertilizer to drop out the pipe, cross over the catch basin and into the sump. The use of these drainage structures helped improve our water quality outflow into our outfall drainage features."

To get the grade and slopes as accurate as possible on all the playing fields, Douet had the construction crews use GPS equipment along with laser levels.

"To understand every nook and cranny of this park and how it drains, we actually created a three dimensional ground surface of this entire park. Based on that 3D surface model we created, we were able to know exactly where we would need to catch the water. And that's where the catch basins were put. That's how it all started."

"All the fields and all the common areas and parking lots," he continued, "could be graded only with GPS equipment that had a vertical tolerance of 1/100th of a foot," he continued. "The contractor used laser levels and GPS units following my 3D



"As far as backfill, we originally bid the project using aggregate backfill, which is really what that pipe calls for, but when we bid the project we were over budget so **I really needed to find areas where I could save money.**"

model. This way I would get exactly the drainage I wanted. That's my biggest takeaway; if I was going to do a facility like this again, I would do it in the same way. The only way to do it right is to utilize the technology that the construction world has today and that's with equipment that has a global positioning system. This means the computer drives the tractor so to speak, and grades that dirt exactly like we want it."

Douet made the call to put in native soil as backfill for all sub-surface drainage not under the loading of vehicular traffic. The crew compacted the haunch, bottom and sides.

"As far as backfill, we originally bid the project using aggregate backfill, which is really what that pipe calls for, but when we bid the project we were over budget so I really needed to find areas where I could save money. One of the choices I made was to allow native soil to be put back in the trench, but only in areas that weren't subject to traffic. Where the pipe is underneath parking lots, however, that was backfilled with aggregate. For most of complex, there's no weight on top of it, just people walking on it and that's nothing. I think we saved about \$700,000 by allowing earthen backfill."

The storm water management system was put to the test just before the grand opening event, but Douet wasn't worried. "About 3 days before the grand opening we had close to a 9-inch rain within 12 hours," he said. "And about 4 hours later all the water was out and about. None of the fields had a drop of water on them." **ST**



# ETHANOL-BLENDED FUEL REMAINS KEY ISSUE FOR THE OPE INDUSTRY

*OPEI provides updates on legislative activity, educational initiatives*

■ BY KRIS KISER, PRESIDENT AND CEO, OUTDOOR POWER EQUIPMENT INSTITUTE



The Outdoor Power Equipment Institute (OPEI) continues to work on policy and educational initiatives to address the entry of mid-level ethanol blends, E15 or otherwise, into the U.S. general fuel supply. Our members and industry remain concerned about misfueling of outdoor power equipment and other products, which can result in product damage and potential safety issues. Here is an update on legislative issues and activities.

## Will EPA announce new blending requirements for ethanol this year?

On April 10, the Environmental Protection Agency (EPA) announced a proposed settlement with the American Petroleum Institute and the American Fuel and Petrochemical Manufacturers over deadlines for issuing annual requirements under the Renewable Fuel Standard (RFS) program. Under the proposed consent decree, EPA would issue final annual volume standards for 2014 and 2015 by the end of this year. Although not required by the consent decree, EPA will also finalize the standards for 2016 in 2015.

The proposed consent decree does not address the content or substance of the volume standards, and it establishes the following schedule:

- By June 1, the agency will propose volume requirements for 2015;

- By November 30, EPA will finalize volume requirements for 2014 and 2015 and resolve a pending waiver petition for 2014.

EPA also announced the following:

- EPA will propose and finalize the RFS standards for 2016 on the same timeline (proposal by June 1, final by November 30);

- EPA will propose and finalize the RFS biomass-based diesel volume requirement for 2017 on the same schedule; and

- The agency will re-propose volume requirements for 2014 that reflect the volumes of renewable fuel that were actually used in 2014.

MAIN IMAGE ©ISTOCKPHOTO/TRAVISMANLEY  
GAS CAN WARNING LABEL IMAGE PROVIDED BY THE OUTDOOR POWER EQUIPMENT INSTITUTE (OPEI).

quirements for 2014 that reflect the volumes of renewable fuel that were actually used in 2014.

#### **What's happening on Capitol Hill with RFS reform?**

On February 26, Senator Pat Toomey (R-PA) proposed S. 577, *Corn Ethanol Mandate Elimination Act of 2015*, which would remove the explicit mandate for the use of corn ethanol. The bill would not invalidate the E15 partial waiver, or restrict the EPA waiver authority for the addition of new mid-level fuel blends. The general impetus for this bill stems from concerns over diverting food resources to energy, food prices, and land-use issues. Co-sponsors include Senators Dianne Feinstein (D-CA), Susan Collins (R-ME) and Jeff Flake (R-AZ).

On February 4, Representative Bob Goodlatte (R-VA) introduced H.R. 704, *RFS Reform Act of 2015*, which would focus on rescinding EPA waiver authority to introduce new mid-level blends, and would also repeal the existing partial-waiver for E15, capping ethanol blends at E10. The bill has 46 co-sponsors, with bipartisan support, and is identical to the legislation introduced during the last Congress.

Goodlatte also reintroduced on February 4 the H.R. 703, *Renewable Fuel Standard Elimination Act*, with 57 co-sponsors. This legislation would fully repeal the RFS.

On January 21, Representative Michael Burgess (R-TX), introduced H.R. 434, *Leave Ethanol Volumes at Existing Level Act*. The bill would repeal the E15 waivers, rescind EPA's authority to issue additional ethanol volume waivers, and effectively cap ethanol mid-level blends at E10.

On January 7, Representative James Sensenbrenner (R-WI) introduced H.R. 21 with nine co-sponsors. The act provides for a comprehensive assessment of the scientific and technical research on the implications of the use of mid-level ethanol blends. This legislation would roll back the E15 waivers, as well as rescind EPA authority to issue new ethanol waivers until a federally funded study is completed and reviewed, assessing the effects of ethanol on engines.

#### **Will legislative change really happen in Washington this year?**

You may see a lot of angst related to ethanol-blended fuels online — including political advertising, industry groups talking

about visiting Capitol Hill, and digital advocates trading barbs. All of this saber-rattling might make you think change is imminent, but we don't think change is likely this year for a variety of reasons.

This is a regional debate more than a partisan one. RFS legislation has a short-term window of opportunity this year. That window will close quickly this fall as the presidential race for 2016 heats up. The issue remains highly complicated due to the flaws in the RFS, and the combination of market forces and stakeholders — which gives us little optimism for success of reform legislation.

#### **I heard Chicago is discussing selling E15. What is happening with that?**


Chicago's city council has suspended consideration of a proposed ordinance to mandate the installation of infrastructure for the pumping of E15 at select Chicago filling stations. We continue to monitor the situation.

#### **What is going on at a state level legislatively?**

Many states introduced fuel legislation early in this year's first term, including Illinois, Vermont and Hawaii. There are resolutions calling for federal action, state tax incentives, grants, restrictions and bans.

#### **What can our industry do now?**

One of the best things we can all do is educate consumers on proper fueling. Consumers may not realize that the fuel they put in their cars, especially those designed for higher ethanol blends, may not be safe for their outdoor power equipment, small engines, snowmobiles and boats.

It is imperative that we continue to educate people about ethanol blends and proper fueling. Our *Look Before You Pump* campaign ([www.lookbeforeyouump.com](http://www.lookbeforeyouump.com)) provides a variety of tools that you can use to better inform and educate consumers about proper fueling. OPEI's web portal offers a public relations toolkit and free downloadable items for the campaign at [www.TinyURL.com/EthanolEducation](http://www.TinyURL.com/EthanolEducation). 

*Kris Kiser is the president and CEO of the Outdoor Power Equipment Institute (OPEI), which is an international trade association more than 100 small-engine, utility vehicle and outdoor power equipment manufacturers and suppliers of consumer and commercial outdoor power equipment. Learn more about OPEI at [www.opei.org](http://www.opei.org).*

## **HOW YOU CAN GET INVOLVED IN OPEI'S LOOK BEFORE YOU PUMP CAMPAIGN**



#### **■ Follow the campaign through social media.**

Follow and re-tweet hashtag #LookB4UPump and "like" the OPEI Facebook page (<https://www.facebook.com/pages/Outdoor-Power-Equipment-Institute/179449385434673>).

**■ Distribute an article or information about the campaign through your website, blog or social media channels.**

Share information about the campaign and its emblematic artwork through your website, blog, Facebook page, or Twitter feed. Link to the videos and information, so consumers can learn about proper fueling. You can download a public relations toolkit with templates at the web portal: [www.TinyURL.com/EthanolEducation](http://www.TinyURL.com/EthanolEducation).

**■ Print 'Look Before You Pump' signage for use in your**

**store or showroom.** You can download a free copy of the campaign items online at the web portal. You also can order hang-tags for equipment, window cling stickers and more at [www.TinyURL.com/EthanolEducation](http://www.TinyURL.com/EthanolEducation).

**■ Use campaign fact sheets to educate staff and consumers.** Make sure your staff members are up to speed on the fuel choices in the marketplace



## ETHANOL-FREE FUEL & ADDITIVES

### B3C FUEL SOLUTIONS OFFERS PRODUCTS TO COMBAT ETHANOL-BLENDED FUEL-RELATED ISSUES



Today's modern gasoline contains ethanol, which attracts water and causes issues such as phase separation (ethanol/water mix separates out and

settles on the bottom of a fuel tank), corrosion, fuel decay, instability and contaminants. This ethanol/water mixture is corrosive. As this mixture moves from a fuel tank into an engine, it causes many problems, including — but not limited to — varnish, gum, severe corrosion, dried and brittle rubber and plastic parts, and accelerated fuel decay. For a consumer, the end result is often an engine that will not start or may start but runs poorly. However, dealers can use B3C Fuel Solutions' products to test, fix, and prevent fuel-related issues.

**Test:** Knowing fuel quality is the first step to fixing and preventing fuel-related issues. Now you can check the gas in a customer's unit to see if it is a fuel-related issue by using Gasoline Test Swabs. The Test Swabs will check the gas to see if it is fresh, marginal (decaying) or bad, and if there is water present. You can then inform the customer the status of the gas and use it as part of your diagnostic service. This can also inform you if the repair is covered under warranty. The great part of the Test Swabs is that it only takes a few minutes to perform the test, and it can be done right in front of the customer so that there are no questions.

**Fix:** Mechanic In A Bottle synthetic fuel additive works in 2-cycle and 4-cycle gasoline engines. It removes all varnish in the fuel system without having to remove the carburetor, removes carbon deposit and water, reconditions rubber and plastic components, and revitalizes old fuel. Mechanic In A Bottle rejuvenates fuel systems, so they start efficiently and operate in top condition.

**Prevent:** How can a customer make sure that the unit will start? By using Ethanol Shield Fuel Stabilizer in the gas at all times, the fuel will stay fresh, and ethanol will not be an issue. The fuel will not be the reason the engine will not start. This means that there is an actual issue with the engine that needs service and very well could be covered under the manufacturer's warranty.

**B3C Fuel Solutions LLC**

### BRIGGS & STRATTON ADVANCED FORMULA FUEL TREATMENT & STABILIZER



Briggs & Stratton Advanced Formula Fuel Treatment & Stabilizer is a super-concentrated, 5-in-1 formula developed by small-engine experts to protect against the harmful effects of

ethanol-blended fuel in small engines. Unlike other fuel treatment and stabilizer products, the formula contains no alcohol, which can compound the damaging effects associated with ethanol due to moisture.

- Up to 3 years of fuel stabilization with the help of triple anti-oxidant metal part protection
- Hard-working detergent cleans the fuel system to prevent carburetor gumming and varnish.
- Metal de-activators and corrosion inhibitors guard against rust and degradation

Briggs & Stratton Advanced Formula Fuel Treatment & Stabilizer prevents ethanol problems in all 2-cycle and 4-cycle gasoline engines, and it is an ideal product for easy engine starting and long-duration outdoor power equipment storage.

**Briggs & Stratton Corp.**

### BRIGGS & STRATTON ADVANCED FORMULA ETHANOL-FREE FUEL



Briggs & Stratton Advanced Formula Ethanol-free Fuel is a line of premium stabilizer and fuel blends specifically designed to make operation of 2-cycle and

4-cycle gasoline engines smoother, while maintaining performance and reliability. It also contains a fuel-stabilizing ingredient to maximize fuel storage life and prevent carburetor gumming, varnish, and corrosion. Ethanol-free fuel is application-ready, which means no mixing and no mess. It is available in 3 blends, including:

- **4-cycle fuel** for outdoor power equipment such as lawn mowers and chipper/shredder. A combination of ethanol-free fuel and stabilizer.
- **40:1 and 50:1 fuel** for 2-cycle engines such as leaf blowers and string trimmers. A

combination of ethanol-free fuel, synthetic oil and stabilizer.

**Briggs & Stratton Corp.**

### GOLD EAGLE EXPANDS STA-BIL 360° PERFORMANCE TECHNOLOGY



Gold Eagle Co., makers of the STA-BIL brand of fuel stabilizers and ethanol treatments, announced April 20 that the company is revolutionizing and expanding its successful STA-BIL 360° product line. The new STA-BIL lineup will incorpo-

rate its unique 360° technology across many of its products for automotive, boating and small engines. The streamlined portfolio now offers the industry's latest technology featuring 5-in-1 engine performance-boosting benefits, while providing customers the same STA-BIL fuel stabilization and protection they have known and trusted for decades.

The new STA-BIL 360° line is designed to support consumers seeking ultimate performance in the automotive, boating, powerports and small-engine categories. STA-BIL scientists developed these innovative products to help restore power, maximize fuel economy, prevent ethanol damage, clean the fuel system, and provide a smooth idle. STA-BIL 360° Marine offers all of these benefits and provides better water removal for marine engines. The proprietary 360° technology also prevents corrosion above the fuel line by releasing a vapor that coats all metal parts of the fuel system, including the fuel tank, fuel sending unit, valves, carburetor and fuel injectors with a microscopically thin corrosion-preventing shield. STA-BIL 360° Performance Small Engine Formula is ideal for use in small engines, including lawn mowers, hedge trimmers, generators and more, and it comes in 4-ounce bottles. And like all STA-BIL brand products, the enhanced formulas stabilize fuel for up to 1 year. STA-BIL 360° products are safe and recommended for use in all types of gasoline and are recommended for use at every fill-up for year-round protection.

**Gold Eagle Co.**



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Sources: Centers for Disease Control and Prevention ([www.cdc.gov](http://www.cdc.gov))  
& The American Academy of Orthopaedic Surgeons ([www.aaos.org](http://www.aaos.org))



# Florida Field AKA “THE SWAMP”



The Field of the Year Awards program is made possible by the support of sponsors Ewing, Graff's Turf, Hunter Industries and World Class Athletic Services.



**Category of Submission:** College Football

**Sports Turf Manager:** Jason H. Smith

**Title:** Coordinator of Turfgrass

**Education:** Bachelor's of Science in Agronomy - Golf & Sports Turf Management

**Experience:** Graduated from Mississippi State University. I was the assistant at Mississippi State University for 4 years and decided to further my career and pursue becoming a head Sports Turf Manager. My first head Turf position was at USA Baseball Stadium in Millington, TN which then led me to the University of Memphis. I became the Coordinator of Turfgrass at University of Florida in November of 2012 where I oversee all athletic fields, which is approximately 18 acres.

**Original construction:** 1930

**Rootzone:** 90% sand, 10% organic

**Turfgrass variety:** Celebration Bermudagrass

**Drainage:** Subsoil Pipe Drainage System on 20 foot spacing. Surface drains of 1% slopes with outside perimeter drains.



## WHY STMA SHOULD CONSIDER YOUR FIELD A WINNER?

Two things really surprised me when I took over as the Coordinator of Turfgrass at the University of Florida. The first was the only locker room for football is in the stadium. There is not a football complex at the practice fields. This situation encourages the use of Florida Field daily as individual players work out constantly on their own. It is also common to have practices on Florida Field out of the convenience of the location of the locker room and meeting rooms.

The second surprise was that Ben Hill Griffin Stadium is open to the public 7 days a week. Most days the stadium is open by 5 am and closes at 10 pm. We have signs that request the public to stay off Florida Field, but many ignore the signs and use the field as they wish. Often it is used for personal family photos around the Gator head logo on the 50-yard line or a group wanting to play soccer. We never know what we are going to see when we arrive at the stadium every day.

With these two issues added to the normal use of Florida Field, it makes it very challenging to produce a quality that is expected on a college football field in the fall. We have to be proactive in all of our cultural practices and take advantage of the limited down time. One of our most helpful tools we have acquired is a set of verticutting units for one of our fairway mowers. This allows us to verticut lightly, but more frequently. Verticutting lightly allows us to maintain our thatch level, but not take the field out of play versus verticutting heavy one to two times a season.

I feel that I have taken Florida Field to a whole new level of professionalism that includes creating and adjusting a program to help overcome the many unique obstacles and adversities we deal with daily. My main goal is to provide a top-notch safe playing surface for our student athletes that is also aesthetically pleasing to staff, alumni and family of the Gator Nation.

**SPORTSTURF:** How do you deal with the pressure of having to maintain such a high-visibility playing surface?

**SMITH:** Dealing with the high visibility of caring for Florida Field at Ben Hill Griffin Stadium begins with having confidence in and trusting our team. After being in this industry for 20 years, I've learned this is definitely a team effort. Whether it's summer time cultivation or finishing painting for a big game, my crew always comes through bringing out the highest potential possible of Florida Field.

**ST:** What are your specific job responsibilities?

**SMITH:** I am the Turf Coordinator and oversee 18 acres of athletic fields. I currently have seven full time staff members which help maintain the fields. I am also responsible for creating and staying within the confines of the operating budget.

**ST:** What do find most enjoyable? What task is your least favorite and why?

**SMITH:** The most enjoyable part of my job is when I can get on a mower at daybreak. The views of the fields at this time of day are amazing, but never seen by the public. Being on quiet and dew-drenched fields before the Florida sun comes out and phone calls and emails are my favorite part of the day.

My least favorite part of my job is the lack of available time to get in and actually do what is best for the fields. The constant nature of collegiate athletics today is a challenge for all of us in the turf industry and can make it tough to find time to do what the fields really need to be the best they can be. That said, part of the challenge that I enjoy each day and overcoming such obstacles keeps me motivated and inventive.

**ST:** What changes are you planning to make to your football field maintenance plan for 2015, if any?

**SMITH:** Florida Field has not been overseeded in years. It is very challenging to create a quality playing surface for the





end of season games and bowl practices when the Bermuda has all but stopped recovering. I will continue to work with our administration and football program to see what practices

such as this among others can help us be the best we can be all year round.

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

**SMITH:** With the importance of aerifying and verticutting the best advice I have ever received was from Dr. Mike Goatley. He said, "If you think your fields are looking good, then it's probably about time to start tearing them up."


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

**SMITH:** It's a balancing act that I am currently getting a crash course in. My wife and I recently had our first child. A friend and colleague, Waldo Terrell, once said that all the pictures of fields would be replaced with pictures of your child. Boy, was he right!

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

**SMITH:** Verticutting reels on a fairway unit. We have a fairway mower that is dedicated strictly for verticutting. This enables us to do frequent light verticutting. With the increasing number of events on all of our fields, the days of aggressive verticutting are almost obsolete. The frequent but light verticutting allows us to manage thatch without taking our fields out of play.

**ST:** Are you yet involved in "sustainable" management practices? If so, what are you doing?

**SMITH:** The University of Florida is an institution that as a whole is very committed to sustainability from using organics on campus to composting at football games. As part of that mission and commitment, we are constantly looking at all of our practices and procedures to see what is out there and what new innovations are available to help us be more sustainable. 

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# ALL AGRONOMY IS LOCAL; CHAPTERS FILL MANY NEEDS

**V**alue may be the one word that everyone can agree on to describe why sports field managers join their local STMA chapter. Yet, value means different things to different people; it may all come down to having your individual needs met. Those needs certainly vary.

## CONNECTIONS

Local chapters provide local connections with whom you can solve problems and discuss issues. For Nick Caggiano with the New England STMA, "Being a member of your local STMA chapter provides to you a tremendous network of local Sports Turf Managers." He views them as a valuable resource pool to help solve a variety of issues. "Chapter members are just a phone call or text away and are always willing to provide assistance, whether the problems are agronomic, regulatory, or business management," says Caggiano.

Ron Hostick, CSFM, found his chapter, the SoCal STMA, to be a great organization for making important connections, and especially helpful in career advancement. "I can say right now, SoCal STMA provided me great contacts both with fellow turf managers and our amazing group of vendor/supporters; it is through the combination of shared experiences from both groups I have received opportunities to improve my career prospects and the skills required to perform my job with an heightened level of expertise," says Hostick.

## EDUCATION

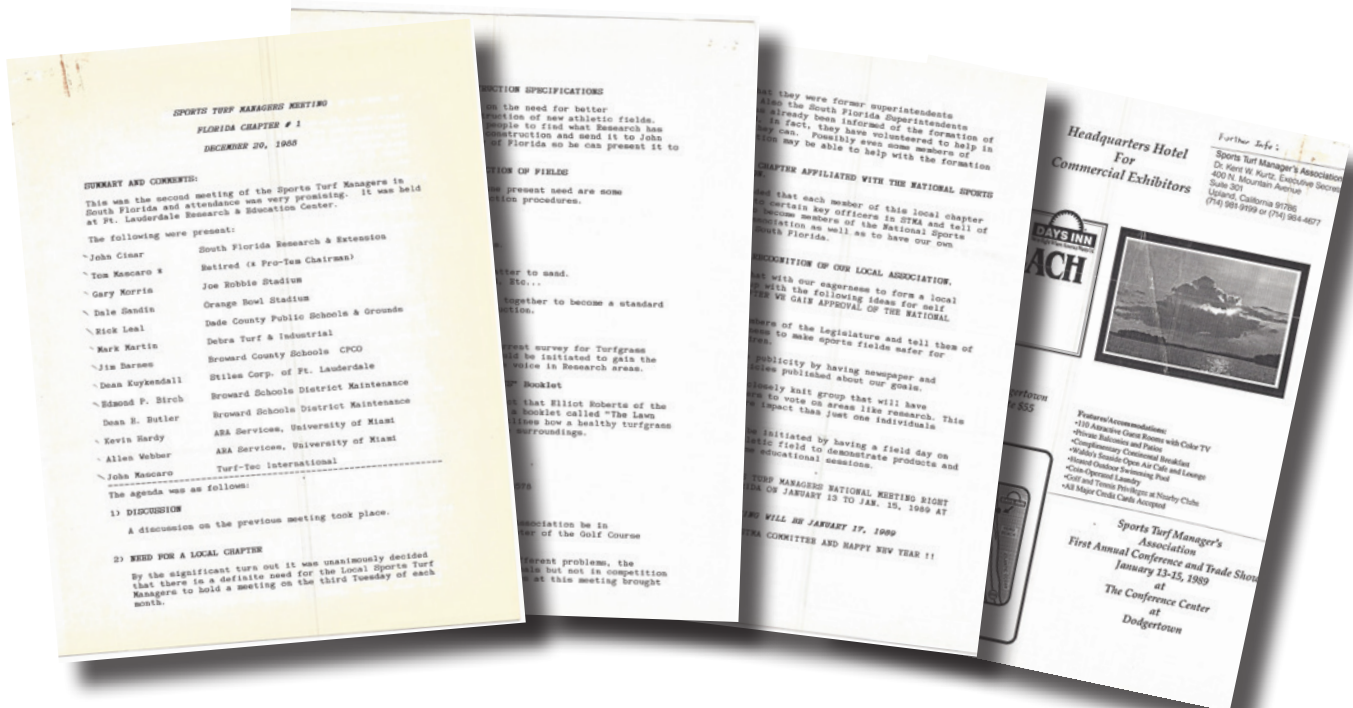
Just as all agronomy is local, so is agronomic education. "We do our best to tailor our chapter's education programs to address regional and timely issues that are affecting our members," says TJ Brewer, CSFM, Iowa STMA. As geography and weather issues are all regional, our chapter uses field days for hands-on education, and our newsletter, *Sideline Report*, to address those issues that our members are dealing with."

## RESOURCES

Commercial members make up a very important segment of the STMA chapter network. According to Jody Gill, CSFM, Blue Valley School District, the ability to access local companies and local distributors of national companies that are in his chapter helps him save time and make more effective purchases. "Being able to meet with our local distributors, see new products and technology and how they actually work on our fields is important to our operations," says Gill. "We consider our chapter's commercial members to be significant partners with us, helping to strengthen our chapter and helping sports field managers to be successful."

## PHILANTHROPY

Chapters are known for giving back to their communities. A perfect example is the MO-KAN chapter. They took on a task of renovating a grassy area into an athletic complex that now hosts





football, soccer and baseball games. "The organization that used the old facility reached out to MO-KAN for guidance," says John Watt, CSFM, MO-KAN President. "After hearing some of the stories about the childhoods of these young athletes, our chapter knew what we needed to do to put a smile on their faces." After several years of work by MO-KAN, the facility is near completion. "Other groups helped financially, and the kids have taken ownership of the fields and the facility with great enthusiasm," says Watt. "Although this project was a major undertaking that spanned several years, any local chapter can improve their community by starting on a smaller scale."

### OUTREACH

STMA views each of its 33 local affiliated chapters as a significant component of the association, not only for local education and networking, but to carry the message of safer fields. Bobby Behr, CSFM, STMA Chapter Relations Chair views chapters as critical to reaching non-technical audiences who are associated with sports fields. "Local chapters have the opportunity to convey information about why sports fields need to be managed by a professional," says Behr. "They are in a unique position to educate fans, employers and field users about the safety benefits of employing a qualified sports field manager."

### IN THE BEGINNING

STMA's first official chapter, South Florida, also known as Florida #1, was formed in 1988, just 7 years after the national association began. The impetus for developing the chapter was primarily for employment opportunities.

According to John Mascaro, one of the founding members of Florida #1, "The group in south Florida really needed to identify a network of qualified sports turf managers who could run the day-to-day field operations at stadiums and other facilities. We also needed help with purchasing products and equipment for sports field maintenance and by forming the chapter, we were better able to connect with commercial members who could help," says Mascaro.

"The first president of South Florida was Ed Birch, Broward County Schools," Mascaro reminisces. "As with many chapters' leadership, he held that position for quite a few years." The administrative aspects of forming a chapter was challenging, Mascaro remembers. "We formed as a for-profit corporation, initially. We didn't know any better."

There were two organizations in Florida that Mascaro recalls as being similar. "The Florida Turfgrass Association and the Florida Golf Course Superintendents Association were up and running,

## STMA Affiliated Chapters Contact Information

**Sports Turf Managers Association of Arizona:** [www.azstma.org](http://www.azstma.org)

**Colorado Sports Turf Managers Association:** [www.cstma.org](http://www.cstma.org)

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

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

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

**Gateway Chapter Sports Turf Managers Association:**  
[www.gatewaystma.org](http://www.gatewaystma.org)

**Georgia Sports Turf Managers Association:** [www.gstma.org](http://www.gstma.org)

**Greater L.A. Basin Chapter of the Sports Turf Managers Association:**  
[www.stmalabasin.com](http://www.stmalabasin.com)

**Illinois Chapter STMA:**  
[www.ILSTMA.org](http://www.ILSTMA.org)

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

**Indiana - Contact Clayton Dame,**  
[ClaytonDame@hotmail.com](mailto:ClaytonDame@hotmail.com) or Brian Bornino,  
[bornino@purdue.edu](mailto:bornino@purdue.edu) or Contact Joey Stevenson,  
[jstevenson@indyindians.com](mailto:jstevenson@indyindians.com)

**Iowa Sports Turf Managers Association:**  
[www.iowaturfgrass.org](http://www.iowaturfgrass.org)

**Kentucky Sports Turf Managers Association:** [www.kystma.org](http://www.kystma.org)  
**Keystone Athletic Field Managers Org. (KAFMO/STMA):**  
[www.kafmo.org](http://www.kafmo.org)

**Michigan Sports Turf Managers Association (MiSTMA):**  
[www.mistma.org](http://www.mistma.org)

**Minnesota Park and Sports Turf Managers Association:**  
[www.mpstma.org](http://www.mpstma.org)

**MO-KAN Sports Turf Managers Association:** [www.mokanstma.com](http://www.mokanstma.com)

**New England STMA (NESTMA):**  
[www.nestma.org](http://www.nestma.org)

**Sports Field Managers Association of New Jersey:** [www.sfmanj.org](http://www.sfmanj.org)

**Sports Turf Managers of New York:**  
[www.stmony.org](http://www.stmony.org)

**North Carolina Chapter of STMA:**  
[www.ncsportsturf.org](http://www.ncsportsturf.org)

**Northern California STMA:**  
[www.norcalstma.org](http://www.norcalstma.org)

**Ohio Sports Turf Managers Association (OSTMA):**  
[www.ostma.org](http://www.ostma.org)

**Oklahoma Chapter STMA:**  
405-744-5729; Contact: Dr. Justin Moss  
[okstma@gmail.com](mailto:okstma@gmail.com)

**Oregon STMA Chapter:**  
[www.oregonsportsturfmanagers.org](http://www.oregonsportsturfmanagers.org)  
[oregonstma@gmail.com](mailto:oregonstma@gmail.com)

**Ozarks STMA:**  
[www.ozarksstma.org](http://www.ozarksstma.org)

**Pacific Northwest Sports Turf Managers Association:**  
[www.pnwstma.org](http://www.pnwstma.org)

**Southern California Chapter:**  
[www.socalstma.com](http://www.socalstma.com)

**South Carolina Chapter of STMA:**  
[www.scstma.org](http://www.scstma.org)

**Tennessee Valley Sports Turf Managers Association (TVSTMA):**  
[www.tvstma.com](http://www.tvstma.com)

**Texas Sports Turf Managers Association:**  
[www.txstma.org](http://www.txstma.org)

**Virginia Sports Turf Managers Association:** [www.vstma.org](http://www.vstma.org)

**Wisconsin Sports Turf Managers Association:** [www.wstma.org](http://www.wstma.org)

## Chapter Sponsors



but their focus, obviously was not on sports fields,” says Mascaro. “Our founders really felt there was a need for a group that focused exclusively on field management. The pride and camaraderie of being a part of this group continues today,” he says.

## TODAY

STMA's chapter network is nearly nationwide, with a few geographic areas still in development. To be an affiliated chapter, there are five main activities:

1. Get interest from a minimum of 25 practitioners and academics. Commercial support is highly desired, but for sustainability there must be a solid number of sports field managers.
2. Elect officers or a de-facto steering committee.
3. Develop bylaws and articles of incorporation and apply to

your secretary of state's office to become incorporated. Each state is different, but usually has good instructions for on-line application. Most chapters incorporate as a non-profit organization.

4. Sign an STMA chapter affiliation agreement.

5. Provide all documentation to STMA HQ: Signed petition of 25 minimum members, bylaws, articles of incorporation, proof of incorporation status, chapter officer list, chapter affiliation agreement, and required fee.

In return, STMA provides directors and officers' liability insurance, event liability insurance, and a stipend of up to \$500 yearly for use in enhancing the chapter. STMA also provides chapter officer training annually at the national conference. These programs and services are further enhanced by STMA Chapter Sponsors: Aquatrols, Hunter, John Deere, Pioneer and Turface.

# STMA IS IN THE NEWS!



*“Ben Young knows his way around a mower. The head groundskeeper for the AA Altoona Curve won the Sports Turf Managers Association’s second annual Mowing Patterns Contest.”*

– Sports Illustrated



*“This year, Allen Johnson also takes over as president of the Sports Turf Managers Association, a trade group providing education and industry development for field management professionals.”*

– SportsBusiness Journal



*“STMA member Mercer is a pioneer of leading-edge environmental practices for sports fields and college campus grounds.”*

– Athletics Administration



*“STMA member Noel Brusius notes conducting monthly and annual safety inspections of field conditions is key to making a safe environment for the players.”*

– Recreation Management



*“STMA member uses mower to create art in the infield.”*

– Yahoo!



*“The relationship with grass, a living thing, was precious, and the crew’s impact on the field was visible.”*

– The State





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**1 What is your company's primary business? (check ONLY ONE)**

- F ☐ Sports Complex    G ☐ Athletic Field and/or Park Architect/Designer  
T ☐ School, College or University    P ☐ Park  
H ☐ Other (please specify)

**2 Which of the following best describes your title? (check ONLY ONE)**

- A ☐ EXECUTIVE/ADMINISTRATOR — President, Owner, Partner, Director,  
General Manager, Chairman of the Board, Purchasing Agent, Athletic Director  
B ☐ MANAGER/SUPERINTENDENT — Superintendent, Landscape/Ground  
Maintenance Manager, Foreman, Supervisor  
C ☐ GOVERNMENT OFFICIAL — Government Commissioner, Agent, Other  
Government Official  
D ☐ SPECIALIST — Architect, Designer, Consultant, Agronomist, Horticulturist,  
Certified Specialist  
F ☐ COACH  
E ☐ Other (please specify)

**3 Do you have the authority to buy, specify or recommend products and/or services for your business or organization?** Y ☐ Yes    N ☐ No

**4 Yearly operating expenditures (excluding salaries)**

- F ☐ Over \$1 million    C ☐ \$50,001 - \$100,000  
E ☐ \$500,001 - \$1 million    B ☐ \$25,001 - \$50,000  
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# Q&A with Dr. Grady Miller

Professor, North Carolina State University

**Questions?** Send them to Grady Miller at North Carolina State University, Box 7620, Raleigh, NC 27695-7620, or email [grady\\_miller@ncsu.edu](mailto:grady_miller@ncsu.edu). Or, send your question to Pamela Sherratt at 202 Kottman Hall, 2001 Coffey Road, Columbus, OH 43210 or [sherratt.1@osu.edu](mailto:sherratt.1@osu.edu)

## WRITING THE “Q&A”

*Where do you get the questions for the Q&A? How long does it take you to write the column?*

**A** a recent STMA meeting in Charlotte, NC, during a bus ride between our morning “inside program” and our afternoon field tour, a couple of folks around me started asking me questions about what I do. These are usually fun topics when I am out with field managers as most people think University faculty spend half their day teaching students and the other half playing golf.

I responded that I teach students back at the University but only in the fall semester, give talks to turf managers (I quizzed them to see if they remembered anything from my earlier talk), help turf managers in various extension efforts, research turf culture, and write papers. One of the guys mentioned that he really enjoyed my “Q&A” columns on this page of *SportsTurf* magazine. Then someone asked the two questions that started this column.

In all the years of writing these “Q&A” columns, I do not remember ever being asked about the mechanics of doing so. Reading Dr. Dave Minner’s final “Q&A” column a few months ago caused me to reflect on my own writing experiences over the past 15 years. I concluded that some things have certainly changed.

Part of the reason I feel this way is because I get more e-mail questions on Sunday than any other day of the week. For many, **the day of rest has become a day to reflect and ask questions.**

For instance, in the early years most of the questions came from everyday sports turf managers calling my office phone. Today, when my office phone rings it sometimes startles me since it rings so infrequently. It has been replaced by the regular buzz of my vibrating cell phone. In fact, I doubt office land lines will be around too much longer.

The past 10-12 years, e-mail has been the primary delivery method for questions. I think it is easier for turf managers to sit in front of a computer whatever time fits their schedule, compose their question with all the needed detail, and then add pictures to illustrate points as needed. Part of the reason I feel this way is because I get more e-mail questions on Sunday than any other day of the week. For many, the day of rest has become a day to reflect and ask questions.

Since we now get e-mails on our smart phones, I suspect that e-mail will remain a popular means for delivering questions. In the past year, I have noticed a strong uptick in texting questions and pictures. In some groups, social media has also become popular as a way to ask questions. The information streams that have been developed the past 20 years are probably the biggest change we have seen in our society.

As for who asks these questions, there are people in this industry that I have known for many years that routinely challenge me with questions. Many of you know the type—the sage sports turf manager that is a deep thinker on the what, where, and why in sports turf management. I appreciate conversation with those distinguished managers as well as the newbie that is trying to figure out the basics. There are rarely ever bad questions. Some questions are just more routine than others.

I get questions almost daily and respond to them as quickly as possible. After writing a response, if the question seems like one that I may want to use for a future Q&A, I usually drop it into a folder on my computer. When my due date for a Q&A is a week or so away, I usually look into that folder for a question unless I have a recent one in front of me that needs a written response.

So, now to that second question; how long does it take to write a column? I am not an especially fast or gifted writer, so I am probably not a good comparison if you are trying to determine how long it will take you to write a column for your chapter newsletter. I rarely write a column in one sitting. I sometimes ruminate over a question for a day or two before getting started. Then I sit down and without stopping, write as complete of a response as I can from my experiences plus maybe checking a few sources. Sometimes this process may take me an hour, other times half a day. Then I close the file and move on to something else. I then try to revisit the column again a few days later. I will open up the file and start editing it at the beginning. Sometimes I think the column just needs a few word or sentence changes and other times I may re-write most of the first draft.

At this point I am usually near the editorial deadline to submit the column, so I send it to Eric, the magazine’s editor, for final editing. Occasionally my deadline is a few days away so I may put it aside a second time and then go back over it again. There is no doubt that the more time I spend reviewing it, the better it will read and the fewer errors that Eric has to clean up. How much time for July 2015 “Q&A”? Two sittings, total of 5 hours. In that time, I did stop and respond to a few other questions. Thanks for reading. **ST**





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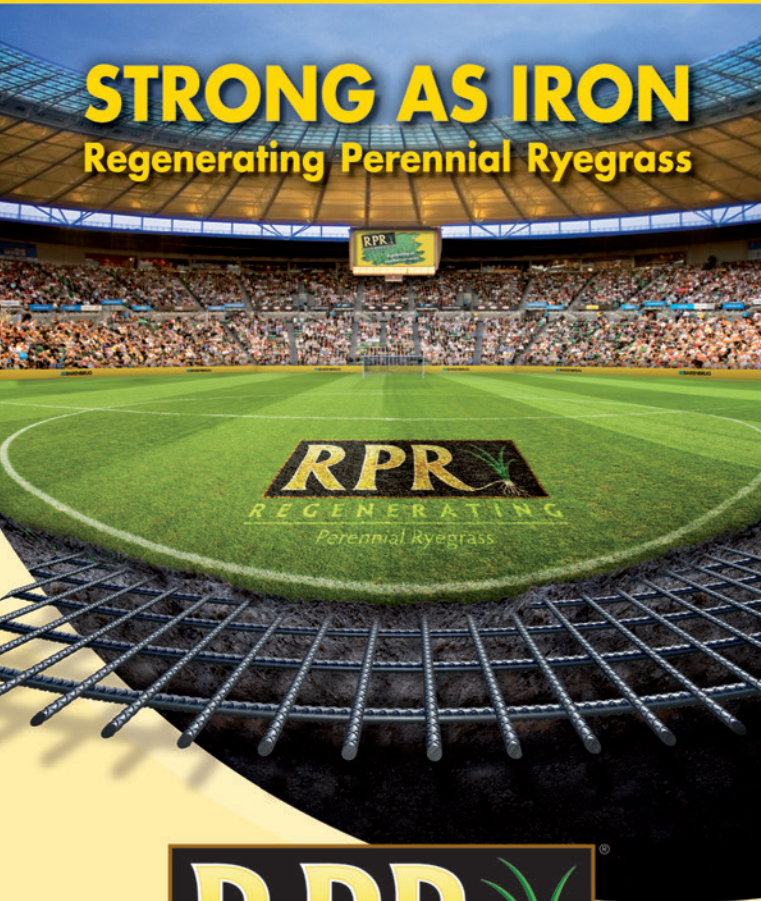


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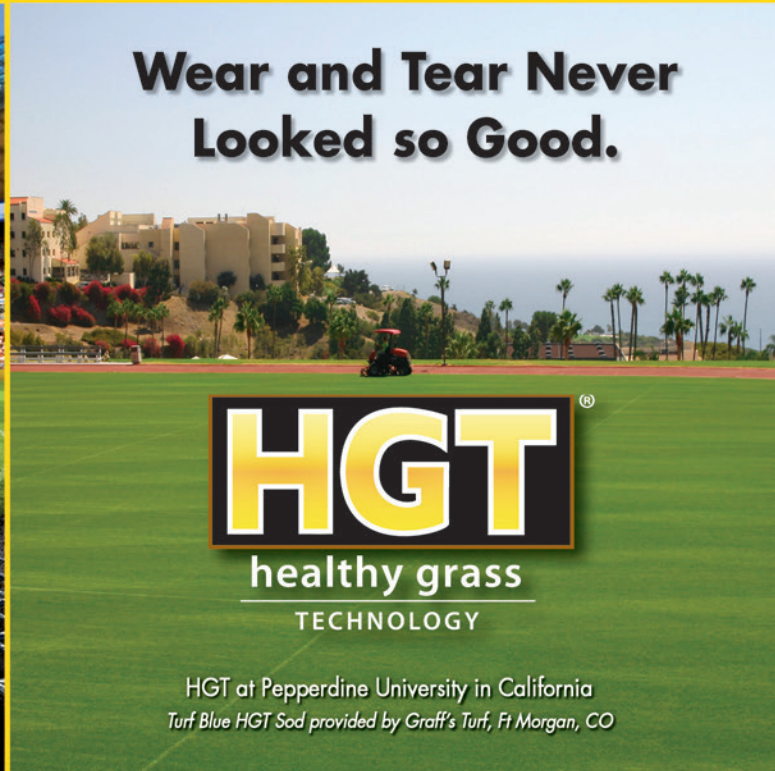


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