



» A COTTON BOWL maintenance crew member prepares the field for a soccer match between Cruz Azul and Club America, two top teams from Mexico.

## A MOVING EXPERIENCE IN HOUSTON

When plans for Reliant Stadium in Houston were first developed in the late 1990s, designers developed an ingenious turf system that allows the grounds maintenance crew to move natural grass in and out of the stadium to accommodate a wide variety of events. The mobile turf system makes Reliant Stadium one of the most versatile venues in the country and allows the turf to recover faster, providing a world-class playing surface for the NFL's Houston Texans.

Sports fields & grounds manager Brandon Smith and his team work with 8 x 8-foot puzzle pieces of turf that reside in 2,700 trays. The 173,000 square feet of turf spends most of its time outside in the Reliant Stadium parking lot. Each tray has an 8-inch sand profile, a layer of geotextiles, plastic and burlap on the bottom for circulation and water filtration. The trays are also equipped with forklift channels on the bottom, which promote air circulation.

Brandon grows more than two full fields outside so he can rotate in fresh grass as the

season wears on. He uses a color coding system to keep track of the turf sections.

"The goal is to give our players fresh grass every week. Ninety percent of football is played between the hashes," says Smith. "With this system, I can easily rotate out the middle when it sees too much wear. It's one of the reasons NFL players consistently rank us as one of the top fields."

Moving the trays into the stadium is an 8-10 hour process that uses five flatbed trucks and a fleet of forklifts. Once inside, the venue serves as a micro-climate that gives Brandon some unique options.

"When we're inside, I can close the roof if we see rain coming or turn up the air conditioning to condition the air and dry the surface," says Brandon. "We water, roll and mow inside the stadium. I can pretty much do everything except aerify and verticut inside the stadium. I actually prefer to oversee inside because there's no wind and I get better seed distribution."

"These sports field managers are truly unsung heroes of the game," says Ron Lubber, vice president at Lubber Bros., the Jacobsen dealer based in Dallas. "They put so much hard work, creativity and dedication into managing professional turfgrass in one of the harshest climates in the country. We're proud to support these customers who present some of the greatest playing surfaces in the world." ■

» Below left: A MAINTENANCE CREW MEMBER for the Houston Texans mows the playing surface in the parking lot outside of Reliant Stadium, where the field spends most its time. Behind the field is the Houston Astrodome. » Below right: A fleet of forklifts position trays of turf to prepare for a Houston Texans home game. Brandon Smith, Sports Fields & Ground Manager for Reliant Stadium, manages a total of 2,700 8 x 8-foot squares of TifSport. After the game, the squares return to the parking lot where they are maintained until the next home game.





# Smart irrigation controllers evaluated by Texas A&M

**T**HESE RESULTS courtesy of Guy Fipps, PhD, one of two authors of the study, "Evaluation of Smart Controllers: Year 2011, Result S1," along with Charles Swanson. The report was prepared for Task 2 of the Rio Grande Basin Initiative Irrigation Technology Center, Texas AgriLIFE Extension Service. This material is based upon work supported by the Cooperative State Research, Education, and Extension Service, US Department of Agriculture. Fipps is Extension Program Specialist, and Professor and Extension Specialist, Biological and Agricultural Engineering, Texas A&M. Swanson is AgriLife Extension landscape irrigation specialist at Texas A&M.

A smart controller testing facility was established by the Irrigation Technology Center at Texas

A&M University in College Station in 2008 in order to evaluate their performance from an "end user" point of view. The end-user is considered to be the landscape or irrigation professional (such as a Licensed Irrigator in Texas) installing the controller. Controllers are tested using the Texas Virtual Landscape which is composed of 6 different zones with varying plant materials, soil types and depths, and precipitation rates.

This report summarizes the results from the 2011 evaluations, when nine controllers were evaluated over a 152-day period, from April 11-May 29, 2011 and August 8-November 20, 2011.

Controller performance was analyzed for each seasonal period (spring, summer, fall). Controller

performance is evaluated by comparison to the irrigation recommendation of the TexasET Network and Website

(<http://texaset.tamu.edu>), as well as for irrigation adequacy in order to

identify controllers which apply excessive and inadequate amounts of water.

Programming smart controllers for specific site conditions continues to be a problem. Only two of the nine controllers tested could be programmed directly with all the parameters needed to

define each zone.

## TOTAL IRRIGATION AMOUNTS

- When looking at seasonal irrigation amounts for the entire landscape, one controller was within +/- 20% the recommendation of the TexasET Network for all six stations during the Fall Evaluation Period.

- Two controllers applied more than ETo for all three seasonal periods.

- Seven controllers applied more than a simple ETc model ( $ETo \times Kc$ , neglecting rainfall) for one or more seasons.

## ADEQUACY ANALYSIS

- No controllers were consistently able (across all 6 stations) to adequately meet the plant water requirements for any season.

- For all seasons combined, 51 stations (37%) showed adequate irrigations, 48 stations (35%) showed excessive irrigation amounts and 39 stations (28%) irrigated inadequately

- Four controllers had five stations that provided adequate amounts of water for one or more seasons.

- Factors that could have caused over/under irrigation of landscapes are improper ETo calculations and insufficient accounting for rainfall. However, 2011 was a drought year with only 5.45 inches of rainfall. ET values recorded off the controllers were inconsistent and erratic throughout the study.

- Based on 2011, performance, controllers with on-site sensors generally performed better and more often irrigated closer to the recommendations of the TexasET Network than those controllers which have ETo sent to the controller. While water savings shows promise through the use of some smart irrigation controllers, excessive irrigation is still occurring under some landscape scenarios.

## WHAT'S EXPECTED OF SMART CONTROLLER

The term smart irrigation controller is commonly used to refer to various types of controllers that have the capability to calculate and implement irrigation schedules automatically and without human intervention. Ideally, smart controllers are designed to use site specific information to produce irrigation schedules that closely match the day-to-day water use of plants and landscapes.

In recent years, manufacturers have introduced a new generation of smart controllers which are being promoted for use in both residential and commercial landscape applications.

However, many questions exist about the performance, dependability and water savings benefits of smart controllers. Of particular concern in Texas is the complication imposed by rainfall. Average rainfall in the State varies from 56 inches in the southeast to less than 8 inches in the western desert. In much of the State, significant rainfall commonly occurs during the primary landscape irrigation seasons. Some Texas cities and water purveyors are now mandating smart controllers. If these controllers are to become requirements across the state, then it is important that they be evaluated formally under Texas conditions.

## CLASSIFICATION OF CONTROLLERS

Smart controllers may be defined as irrigation system controllers that determine run-times for individual stations (or "hydrozones") based on historic or real-time ETo and/or additional site specific data. We classify smart controllers into four types: Historic ET, Sensorbased, ET, and Central Control.

Many controllers use ETo (potential evapotranspiration) as a basis for computing irrigation schedules in combination with a root-zone water balance. Various methods, climatic data and site factors are used to calculate this water balance. The parameters most commonly used

**However, many questions exist about the performance, dependability and water savings benefits of smart controllers. Of particular concern in Texas is the complication imposed by rainfall.**



# JOHN MASCARO'S PHOTO QUIZ

## Answers from page 17

**This Patriot bermudagrass installation** is at the Cincinnati Bengals' practice facility. These two fields were rebuilt using 220,000 square feet of sod. The sod was delivered from a sod farm more than 600 miles away and about half the sod was about 10 months old and the other half was about 18 months old. The 18-month-old sod had also been overseeded and 3 weeks before harvesting the big rolls, the overseeded turf at the sod farm had been sprayed out. Due to the aggressive growth of the overseeded grass, the turf that had been overseeded (on the left) was thinner when compared to the non-overseeded turf on the right.

Interestingly enough, the overseeded turf, even though it did not look as good, was older and also easier to install because of its more mature root system. Even though the previously overseeded portion of the sod was initially about 3 weeks behind in growth, the sports turf manager reported that after a few weeks, growth had caught up and the fields will be in top shape for the football training camp at the end of July (see second photo). These photos are also an excellent side by side example showing the stresses overseeding warm season grasses with cool season grasses puts on the turf in the springtime. If the overseeded sod had not been more mature, it almost certainly would have taken even longer to grow out.

*Photo submitted by Darian Daily, head groundskeeper 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@turftec.com](mailto:john@turftec.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.

include: ET (actual plant evapotranspiration); rainfall; site properties (soil texture, rootzone depth, water holding capacity); and MAD (managed allowable depletion).

The IA SWAT committee has proposed an equation for calculating this water balance. For more information, see the IA's website: <http://irrigation.org>.

### TESTING PERIOD

The controllers were set up and allowed to run from April 11 to May 29, 2011 and from August 8 to November 20, 2011. Controller performance is reported over seasonal periods. For the purposes of this report, seasons are defined as follows: Spring: April 11 to May 29 (48 Days);

Summer: August 8 to September 4 (28 Days); Fall: September 5-November 20 (76 Days). ETo was computed from weather parameters measured at the Texas A&M University Golf Course in College Station, which is a part of the TexasET Network. The weather parameters were measured with a standard agricultural weather station that records temperature, solar radiation, wind and relative humidity. ETo was computed using the standardized Penman-Monteith method.

### CONTROLLER PROBLEMS

Four controllers experienced problems during the course of the study.

1. Controller A had a capacitor leak during the course of the study. This resulted in the controller software operating but not being able to turn valves on.

2. Controller C had a sensor module failure that was discovered during a routine check of controller status (power), the manufacturer was notified and a replacement was installed.

3. Although programmed and installed correctly, the Controller F failed to operate 4 out of the 6 programmed stations. The controller is currently being analyzed for a possible software or hardware malfunction.

4. Controller H experienced communication problems multiple times throughout the study.

Controller alerts (beeping) occurred on at least two occasions during the evaluation period.

The manufacturer was notified of the problem and a signal amplifier was installed on the controller. However, it was later determined that the problem was a result temporary poor signal service by the signal provider company in the testing area (a bad tower).

5. Controller D had a recall issued in late 2011 due to possible sensor malfunctions. As a result this model was discontinued and will be replaced with a newer for the 2012 year test.

### CONCLUSIONS

Over the past 5 years since starting our "end-user" evaluation of smart controllers, we have seen improvement in their performance. However, the communication and software failures that were evident in our field surveys conducted in San Antonio in 2006 (Fipps, 2008) continue to be a problem for some controllers. In the past 4 years of bench testing, we have seen some reduction in excessive irrigation characteristic of a few controllers.

Our emphasis continues to be an "end-user" evaluation, how controllers perform as installed in the field. The "end-user" is defined as the landscape or irrigation contractor (such as a licensed irrigator in Texas) who installs and programs the controller.

Although the general performance of the controllers has gradually increased over the past 4 years, we continue to observe controllers irrigating in excess of ETc. Since ETc is defined as the ETo x Kc, it is the largest possible amount of water a plant will need if no rainfall occurs.



## “Friday Night Lights” contest for high school turf managers

**W**ITH HIGH-SCHOOL FOOTBALL season just weeks away, FMC Professional Solutions will help schools keep players safe from fire ants with the 2012 “Friday Night Lights” contest, running August 1-31, 2012.

Three schools will each win ten (10) bags of the new Talstar XTRA granular insecticide featuring Verge technology (a \$500 retail value) and all five seasons of

NBC’s award winning TV show, “Friday Night Lights” on DVD.

Have you recently had a fire ant problem? Have your budgets been slashed? Or do you have players destined for greatness? Visit the FMC promotions web page (click Friday Night Lights) and tell us why your school deserves to win. Only high schools or the companies contracted to treat high school athletic fields are eligible to win.

“School budgets are shrinking, yet the need for fire ant control is more important than ever. We’ve all read stories about kids getting stung and games being cancelled,” said Adam Manwarren, FMC Product Manager for turf and ornamental products. “FMC is happy to help some deserving schools have a safe football season.”

To enter the contest, visit [www.fmcprosolutions.com/Home/Promotions.aspx](http://www.fmcprosolutions.com/Home/Promotions.aspx)



### Verticutting and aerification

Over time, the development of excessive thatch on turfgrass can restrict the movement of air, water, fertilizer, and other materials to the roots. The thatch can be removed by various methods and/or tools. Several products manufactured by Wiedenmann can aid in thatch removal by either verticutting, by aerifying with coring tines, or by de-thatching with rake fingers.

The Super 500 and the new Super 600 will verticut and collect the thatch in one pass. This allows for verticutting without making a mess. Verticutting becomes a one man, one tractor operation. These units work extremely well as a core pulverizer by installing brackets on the rear door of the hopper, creating a 4” gap that allows materials to fall back to the surface.

The full range of Terra Spikes by Wiedenmann will aid in thatch removal by using coring tines while providing the benefits of deep tine aerification including de-compaction, increased root depth, elimination of black layering, and profile exchange. The Terra Spikes are durable and user friendly, offering a variety of features such as the Quickset adjustment of the entry angle and depth, the VibraStop and PowerPack anti-vibration and absorption systems, the Quickfit tine mounting and extraction system, and an advanced tine control system.

The third method for thatch control is to use the Terra Rake to pull up the thatch material from the turf and deposit this material on the surface.

**Wiedenmann North America, LLC**



### Verti-Cut 1200 from Redexim

The Verti-Cut 1200 is a machine that will dethatch and penetrate even in hard ground using the standard carbide tipped blades. It is the ultimate rootzone management tool for all surfaces and can work at depths from 0-2” at high working speeds. Unlike other verti-cut, the Verti-Cut 1200 can be used behind utility vehicles, small tractors and most other prime movers, due to it being offered with a standard PTO drive or as a self contained machine that is powered with an 18-hp Briggs and Stratton engine.

**Redexim North America**



### Turfco TurnAer XT5 upgrades

Turfco revolutionized aeration with the patented and patent-pending TurnAer XT5 steerable and reversible aerator. Now with increased speed and a new weight system, the XT5 is more efficient and performs better on hills. With a new gear ratio system, the aeration speed is increased by 14%. More ground can be covered in less time without sacrificing quality or the ability to turn while aerating. The new weight system allows operators to adjust the weight in the back of the aerator, improving hill performance and control on hills. The TurnAer XT5 uses Turfco’s patented steerable aerator technology with a new variable-speed hydrostatic drive system. As a result, the XT5 is 50 percent more productive than traditional aerators. It is also simple to understand and operate and requires little maintenance. In addition, the XT5 features new EasyChange tines for fast, easy access for changes and cleaning. Sealed, self-aligning tine shaft bearings keep maintenance to a minimum and reduce down time.

**Turfco Direct**



### ThatchMaster with rolling aerator

TurfTime Equipment pairs its ThatchMaster with Advantage heavy-duty rolling aerators for an unbeatable turf enhancing duo. ThatchMaster clears debris, promoting nutrient uptake and speeding drainage, creating voids for surface aeration, and promoting new growth. Chisel point Revolution tines on the Advantage aerator loosen the next soil layers even in heavily compacted areas. Fast and frequent 7” deep aeration then keeps the field in top shape for uninterrupted play throughout the season. Slicing, coring and sports tine sets are interchangeable on the Aerator. The ThatchMaster also adapts to the job with choices of blade thickness and spacing. Three foot units fitted to the smallest tractors are built to the same rugged specs as large commercial sizes, making this pair the perfect dethatching/aerating choice for small or large facilities.

**Turf Time Equipment**



## First Products VERTI-cutter

Everyone in the sports fields and grounds industry knows that verticutting and thatch removal is crucial to the health and strength of the turf. Removing some of the vertical growth that occurs around a grass plant provides multiple benefits for your grounds. The First Products VERTI-cutter makes the job easier and removes thatch better. Our patented swing hitch allows the unit to turn during operation, which increases maneuverability. What makes the First Products VERTI-cutter better than the competition? Quiet all-belt design means no chain to maintain. Pivot points in hitch allow unit to turn and float over uneven terrain. Centers automatically and locks for transporting. Deep cutting with minimal turf disturbance. Depth adjustments can be made in the field with no tools using a simple detent pin at 3/16" increments. New larger skid shoes placed directly at the center of the rotating blades allow for consistent depth control over undulations. Optional carbide tip blades.

**First Products**

## Reduce soil compaction for healthier turf

Toro's ProCore SR Series deep-tine aerators offer a variety of solutions to alleviate subsurface soil compaction on greens, fairways, sports fields, parks and many other areas. These durable and time-tested products are capable of withstanding the most extreme aeration conditions. The ProCore SR Series will get the job done!

**The Toro Company**

## Super Finetune from AerWay

The AerWay Super Finetune provides venting aeration through the thatch layer and maintains infiltration rates between verticutting and coring treatments on the greens. There is no disruption of play when it is used in conjunction with the smoothing roller. The Super Finetune is available with tines as close as 3" x 3" centers and it can be retrofitted on any AerWay frame. The Super Finetune gives you the ability to manage your thatch. The Super Finetune penetrates through the thatch layer up to 2" deep, leaving an opening for water and nutrient to penetrate into the soil. Using the Super Finetune won't take your field out of play.

**AerWay**

## turfslicer

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

**g2turf tools**

## Z-Plug zero-turn aerator

Revolutionizing the industry, the Z-Plug zero-turn aerator addresses the slow and labor-intensive job of aeration. The first stand on zero-turn aerator of its kind, the Z-Plug has capabilities of adding attachments such as a slice seeder, snow blade, de-thatch rake, spiker, sprayer system and spreader. In today's world, versatility is a must. Powered by a 23 hp Pro-V Briggs and Stratton engine, the Z-Plug can cover over 100,000 square feet (at 8 mph), and produces core depths up to 3 1/2". The floating tine head with hydraulic down pressure can maneuver around trees and beds while engaged. The tine head can be lifted up in 2.5 seconds for quicker turns. Quick release attach points make mounting and removing attachments simple without tools. Our patent pending locking caster system enhances the Z-Plug for hillside stability.

**LT Rich**

## Jacobsen Aerator & Dethatcher

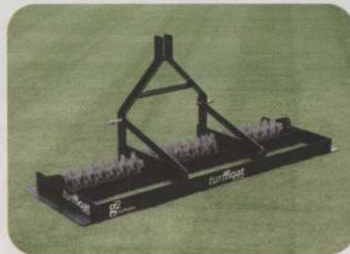
Convert your Cushman Turf-Truckster into a productive aerator with the Quick Aerator attachment from Jacobsen. It easily attaches to your Truckster in minutes and offers a variety of tine styles to choose from including slicing, coring and spoon. Lift or lower the unit from the driver's seat with the Truckster's standard hydraulics. The Quick Aerator is ideal for any turf areas, including sports fields and recreational areas. The Jacobsen Verticut 214 is a tractor-mounted attachment that can be used with any PTO-equipped tractor with minimum 30 hp. The Verticut 214 has an 84" cutting path with the unit's three cutting heads featuring 18 adjustable discs with 54 reversible blades that can penetrate soil up to 0.375 inches.

**Jacobsen**

## Aeration alternative for active turf

When you need to reduce compaction but must keep the ground in play, SourceOne has designed the SL3660 VersaTow Slicer for the job. Operational widths are 36", 48" or 60" using 12" self-storing wings on each side of a 36" frame. Towing with virtually any vehicle is simplified with an easy-to-use telescoping hitch. Slicer wheel assemblies are spaced 6" on center with each consisting of 6 hardened and sharpened knives that provide a 4" deep slicing. Recommended operating speed is up to 5 mph (175,000 sq. ft per hour).

**SourceOne**

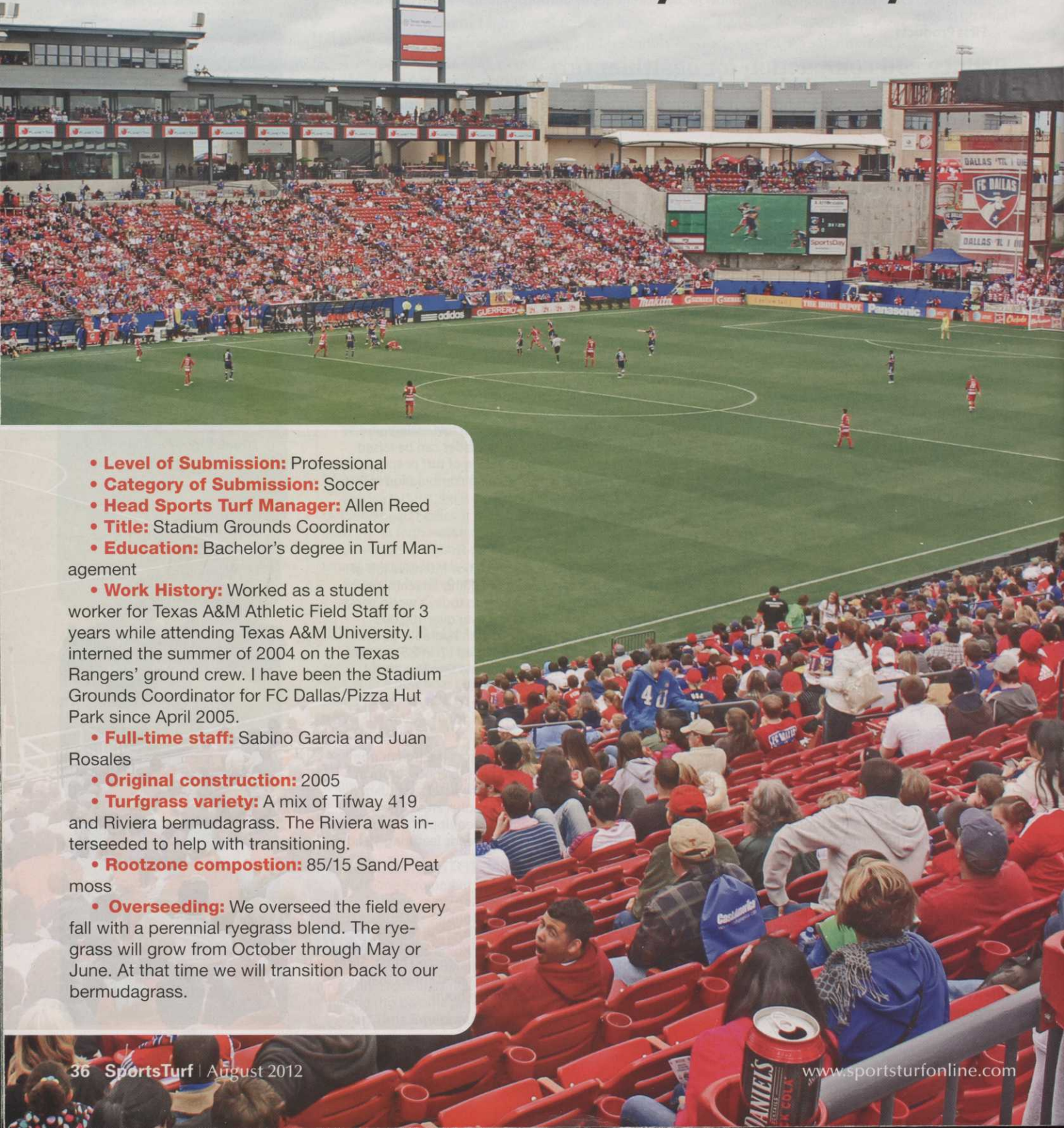




# F.O.Y.

Field of the Year

## FC Dallas Stadium, Frisco, TX



- **Level of Submission:** Professional
- **Category of Submission:** Soccer
- **Head Sports Turf Manager:** Allen Reed
- **Title:** Stadium Grounds Coordinator
- **Education:** Bachelor's degree in Turf Management

- **Work History:** Worked as a student worker for Texas A&M Athletic Field Staff for 3 years while attending Texas A&M University. I interned the summer of 2004 on the Texas Rangers' ground crew. I have been the Stadium Grounds Coordinator for FC Dallas/Pizza Hut Park since April 2005.

- **Full-time staff:** Sabino Garcia and Juan Rosales

- **Original construction:** 2005
- **Turfgrass variety:** A mix of Tifway 419 and Riviera bermudagrass. The Riviera was interseeded to help with transitioning.
- **Rootzone composition:** 85/15 Sand/Peat moss
- **Overseeding:** We overseed the field every fall with a perennial ryegrass blend. The ryegrass will grow from October through May or June. At that time we will transition back to our bermudagrass.



## CHALLENGES

2011 was a record setting year in many ways for us here in Frisco. We dealt with record cold, snow fall, heat, lack of rain, and number of events at what was formerly known as Pizza Hut Park. Our biggest challenge this year was dealing with the extremes of the weather. February was one of the coldest months on record in North Texas.

Temperatures were about 15 degrees below normal and at one point we were below freezing for around 100 hours, sometimes dropping into the single digits. Our average low temperature for that time of year is around 40 degrees. We had about 10-14 inches of snow fall during January and February.

The other extreme to the weather was the heat. The summer of 2011 will go down as the hottest summer on record. We recorded the most 100 degree days in a year at 71 days. The previous record was 69, on average we have 18 days above 100 degrees a year. Forty of the 71 days were consecutive 100 degree days. We missed the record of 42 consecutive days above 100 degrees.

Not only was the heat a problem, but we are dealing with severe drought conditions throughout the summer and even [into the autumn]. We average around 32-40 inches of rainfall a year. This year we have had about 15 inches, with only about 4 inches falling since June. The city of Frisco recently voted to enforce Stage 3 watering restrictions, which is once a week watering. We are not affected by this because our water comes from a well and any runoff that fills our retention ponds.

In 2011, we had the most events in a year since the park opened at 115 events. We started out with the NCAA FCS National Championship football game in January. The MLS season started in March. We had three major concerts in April, May, and July. Each concert this year had a MLS soccer game following it the next day. It's a challenge to do such a drastic change over; you have to do everything that is normally done over 3 days to prepare for a soccer game down to 10 hours. In the fall, soccer and high school football overlap. Several of our football games are on Friday night before a soccer game on Saturday. We use temporary paint for football so that it can be washed and not visible during soccer games.

I implemented a new fertility program that helped the plant be stronger and handle a lot of events. I used more potassium and less nitrogen and saw great results and will continue to use it in the future. We were able to overcome every challenge we were faced with this year. It is very important to go in with a plan and stick to it.

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

**Reed:** The executives from each department in the organization meet weekly to discuss recent events and potential upcoming events. All events are setup through my boss, VP of Complex, and our VP of Operations. We work together and discuss the pros and cons of each event and whether or not it meets our criteria for hosting.

I believe face to face communication with coaches works the



best. I like to educate them on the role they play in keeping the pitch in top condition. I talk to them at least once a week to make sure everything is how they like it and make adjustments as needed. The turf plays a very important role in soccer, therefore the coaches and I need to be on the same page so that the needs of the team can be met and that I maintain a healthy pitch.

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

**Reed:** I am the Stadium Grounds Coordinator for FC Dallas. I schedule and manage all maintenance for FC Dallas' Stadium and practice field, which consist of a total of 5.5 acres of turf. Along with FC Dallas soccer matches, each year we host roughly 17 Frisco ISD football games, 5 major concerts, NCAA FCS National Football Championship, and numerous other soccer matches.

**SportsTurf:** What do find most enjoyable

**Reed:** The most enjoyable part of my job is being able to see all

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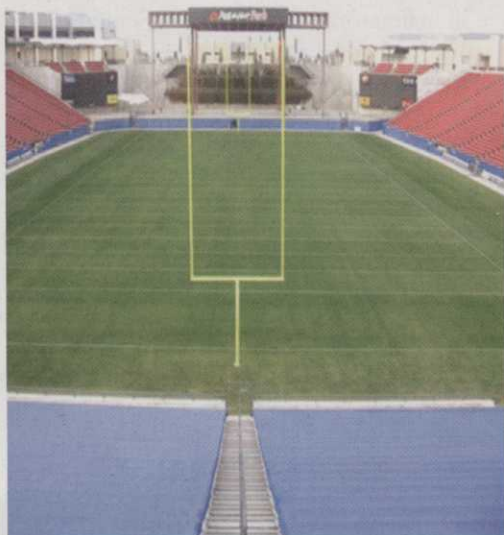




of the hard work my crew and I put into each event pay off. One event we enjoy is the NCAA football game. It is enjoyable to get out of the normal routine of painting for soccer or just the basic lines, numbers, and hashes for high school football. It is a long week of painting logos and end zones, but when finished it is nice to see what normally is a soccer field converted into a championship football field.

### **SportsTurf:** What task is your least favorite and why?

**Reed:** The least favorite part of the job would be anytime we have to cover the field for a concert or other special event. I always cringe when we do this knowing that all the work we put in to making the pitch perfect could be ruined in just a couple of days. The flooring we put down does a great job protecting the field and we normally have a 50-hour turn around on install and pick up, but we just never know how much damage will be done each time.



### **SportsTurf:** How did you get started in turf management? What was your first sports turf job?

**Reed:** I started out college as a Sports Medicine major and found out quickly that was not what I wanted to do. I had mowed lawns while in high school and knew I wanted to work outside and be around sports, so I switched over to Turf Management. Shortly thereafter I started working as a student for Leo Goertz and Craig Potts on Texas A&M Athletic Field staff. I worked there the last 3 years of college and interned one summer for Tom Burns and the Texas Rangers. I have been with FC Dallas since 2005.

### **SportsTurf:** What changes if any are you implementing for the winning field in 2012?

**Reed:** I am constantly tweaking what I do each year; with the extremes in weather conditions in Texas what worked one year may not work best the next. I look back at my records and see what I thought worked great from the previous year's maintenance. I keep doing these things and change areas I think will help improve the quality of the pitch. I attend my State and National conference every year looking for new and better ways to provide the best turf for the athletes.

### **SportsTurf:** How do you see the sports turf manager's job changing in the future?

**Reed:** For the majority, multi-sport stadiums are a thing of the past, but multi-entertainment stadiums are a thing of the future. More and more sports venues are hosting concerts and other outdoor events that attract large crowds to make money for the organization. Most of the time these events happen during season squeezed between games and leave little time for recovery or resod. It will be our job as turf managers to keep field repair cost to a minimum when possible, depending on the event, and have it safe and ready for play soon after. We will need to plan our maintenance accordingly and if the opportunity arises, just know if done correctly and in a timely manner, the field can be saved and ready for play shortly thereafter. ■



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## STMA members' compensation increases 7.5%

**STMA** recently completed its 2012 Compensation and Benefits Report. Median salaries rose nearly \$4,000 for sports turf managers since 2008. The median salary in 2008 was \$51,135 compared to \$55,000 in 2012, an increase of 7.5%. Certified Sports Field Managers (CSFMs) make significantly more than non-certified members at \$64,959.

The survey also reports compensation by experience, education levels, acres managed and by employment category. The report also contains a comparison to the 2008 data, when is statistically different from the 2012 data.

Assistant's salaries are reported in separate tables. The average salary for a first assistant is \$41,458.

The report also provides a comprehensive analysis about of the benefits received by sports turf managers. They do receive typical benefits. However, in most areas there has been a slight decline in employer-paid and employer-provided portions, which is not uncommon in a tight economy.

The complete report is available on the members only area of [www.STMA.org](http://www.STMA.org). ■



## Professional Development: Getting to know foreign investments

**FOREIGN INVESTMENTS** can play an important role in helping to diversify a domestic equity portfolio. But before plunging into international waters, it's important to understand the differences between developed and emerging markets and the risks inherent to each.

Once upon a time, the United States was considered an emerging market. In the late 1800s, British financiers, noting America's growth potential, invested in the companies that were building the nation's infrastructure, particularly the early railroad companies. In doing so, they were accepting more risk than they would have with investments in their own market. The United States, after all, was still maturing, and political and social change, as well as many other factors, could have made it a volatile investment market.

The same risk/reward characteristics apply to today's emerging markets, which are found in every corner of the globe. Because they are still maturing, they may have more room for growth than long-established markets, such as the United States. But because the road to maturity is not always a smooth one, there may be bumps along the way. In general, emerging markets have three characteristics:

- Low or moderate personal incomes.
- Economies that are in the process of being industrialized.
- Financial infrastructures, including stock markets, which are still being developed.

A developing infrastructure is what may give an emerging market its growth potential. For example, in an emerging market an industry such as banking might be just beginning to establish itself and therefore have above-average growth potential. Of course, you need to keep in mind that emerging market investments are generally appropriate for patient investors with long-term time horizons. Emerging market stock prices can take dramatic swings, and it is essential that you have the time to ride them out or in a worse case scenario, the ability to lose some or all of your initial investment.

### Ongoing opportunity

Developed markets typically have higher average incomes than emerging markets, well-established financial institutions and markets and modern infrastructures. Of course, they may still offer investors the potential for continued growth.

By the same token, like emerging mar-

kets, developed foreign markets may be subject to greater risks than domestic investments. Foreign markets may be less efficient, less liquid and more volatile than those in the United States. They are also subject to the effects of foreign currency fluctuations and differing regulations.

If you decide to build an international element into your investment portfolio, mutual funds and separately managed account strategies that focus on international investing may be ideas to consider. Professional portfolio managers often have access to information that's not widely available, not to mention the time and experience required to track events in a variety of markets. Before expanding your portfolio beyond U.S. borders, contact a qualified financial professional who can help you prepare for this investment journey.

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