# New **ASTM** standards for sports turf managers

By James Brosnan and Michael DePew



STM International is one of the world's largest and most recognized standards writing organizations. The "standards" produced by ASTM are reference documents that attempt to limit variability between the products and services of many different industries. ASTM standards exist for a wide variety of products ranging from microprocessors to adhesives, to both natural and synthetic turf athletic fields.

Sports field managers are often unknowingly affected by ASTM standards. Send a soil sample into a testing laboratory and it will be analyzed using test methods that have been standardized by ASTM. Using these standardized procedures ensures meaningful results. Look at any piece of PVC pipe and there will be an "ASTM D-1785" stamp on the side indicating that the pipe meets ASTM specifications. This stamp is a message to the consumer that they will be receiving actual PVC pipe and not a lower quality imitation that may fail in the field.

Athletic field standards primarily fall under the jurisdiction of the F08.64 (natural turfgrass) and F08.65 (synthetic turf) sub-committees within ASTM. These sub-committees consist of engineers, agronomists, architects, consultants, industry representatives, and soil scientists who voluntarily meet twice a year to both edit existing standards and develop new standards for athletic fields. Anyone interested can participate in these committees. The Sports Turf Managers Association sends a technical standards committee member to these meetings to represent the interests of sports field managers.

In early November the F08.64 and F08.65 sub-committees convened in Tampa, FL to work on new athletic field standards. The following sections will describe each particular standard and discuss how it might affect sports field managers.

#### F-1551-03

This is the Standard Test Method for Comprehensive Characterization of Synthetic Turf Playing Surfaces and Materials.

Explanation: This revised document standardizes the test methods used to characterize the components of synthetic turf playing surfaces. The standard outlines a specific set of material test procedures for laboratories characterizing the rubber infill, carpet backing, gravel sub-grade, and pile fiber of infill systems.

Effect on sports field managers: Standardizing these test methods ensures that each manufacturer's product is characterized using the same procedures; therefore, sports field managers can feel comfortable using manufacturers'"spec sheets" to compare one particular brand to another.

#### F-1936 -07

This is the Standard Specification for Shock Absorbing Properties of North American Football Field Systems as Measured in the Field.

Explanation: This document standardizes the method used to test the hardness of synthetic turf fields (i.e., "Gmax" testing). It was proposed that this standard be expanded to include more sports than just football. Additionally, it was proposed that impact attenuation be measured only in the highest traffic areas of a field (between the hash-marks, goalmouths, corner kick areas) rather than both traffic and non-traffic areas.

Effect on sports field managers: If the proposed changes are accepted, sports field managers will be able to have infill systems used for multiple sports tested for impact attenuation with a new method designed to provide more meaningful data. by the Core Displacement Method.

Explanation: This is a proposed new standard for natural turf athletic fields that outlines a method to measure the bulk density of rootzones mixes, in the field, prior to sodding/seeding. The method, which would be much cheaper and more user-friendly than commonly used nuclear techniques, could be used as an alternative to the sandcone method.

Effect on sports field managers: In most cases, the only way sports field managers determine the bulk density of their rootzone mix is through laboratory testing of stock materials. This standard would provide a simple, cost-effective method sports field managers could use to measure soil bulk density in the field.

A proposed standard for golf course greens/tee construction was also reviewed at the meeting. This standard is similar to "F2396-Standard Guide for the Construction of High Performance Sports Field Rootzones," which provides specific guidance for the selection of materials (soil, sand, gravel, peat) used in designing and constructing sand-based sports turf rootzones.

Similar to what the United States Golf Association has done for the golf industry, ASTM is working hard to produce standards specific to sports turf management. When used effectively, these documents can be valuable tools in a sports turf manager's arsenal.

For more information on ASTM International or to purchase a copy of an ASTM standard, visit http://www.astm.org.

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#### WK1582

These are the Standard Test Methods for Comprehensive Characterization Performance Properties of Synthetic Turf Systems.

Explanation: This is a proposed new standard outlining a set of test methods that can be used to characterize the performance of an infill system. Performance is characterized through measurements of properties like traction, ball bounce, ball roll, and impact attenuation (Gmax).

Effect on sports field managers: This set of methods would provide a more cost-effective alternative for those wishing to have the performance of their field certified in a manner similar to the FIFA certification program conducted throughout Europe.

#### WK1449

This is the Standard Test Method for Density and Unit Weight of Topsoil and Blended Soils In-Place



## Turf intern caught in "Civil War"

**By Jonathan Garrett** 

ne of the oldest rivalries in college football is "The Civil War" between the University of Oregon Ducks and the Oregon

State University Beavers; the 2007 meeting was the 111th (Oregon State won 38-31 in double overtime). If you live in Oregon it is a requirement that you choose a rooting interest in one team or the other. Either you're a Beaver or a Duck. The towns of Corvallis and Eugene are relatively close, so the tensions are always high when the gridiron match-up comes around each fall. As a horticulture undergraduate at Oregon State, I took a summer internship with the University of Oregon grounds crew. This decision wasn't easy to make. Despite some hard times and inner turmoil however, it turned out to be one of the best jobs I've ever had. I learned many things about the turf industry; I worked for a great boss who showed me how to be a good manager; learned some tricks of the trade from a veteran crew; learned how to be a better employee; and how to get the most out of my internship. Most importantly, I learned that it's not the destination it's the journey (the dirty, wet, grass-stained journey).

I chose to be a Beaver during my senior year of high school since I thought Oregon State had the best turfgrass program in the area. The program is headed by well-known professor Tom Cook. It wasn't until I got into the program that I decided to narrow my career focus more toward sports fields. With that decision in mind I joined the STMA as a student member in 2004 though I didn't attend my first Conference until last year in San Antonio. In a hotel lobby there I saw a man wearing an Oregon Ducks shirt talking to a friend of mine who had gone through the

program at Oregon State. He turned out to be Eric Fasbender, CSFM, the grounds manager Oregon. I was introduced and that was when the dialogue started about a possible internship at the U of O. I was very hesitant at first, because of my innate dislike for any association with the Ducks.

Later at the Conference I attended a seminar and there was Eric again, who was presenting on how to portray professionalism in the turf industry. I was very impressed by his presentation, especially the professionalism he portrayed while presenting it! Throughout the week I ran into Eric quite a few more times. It was as if fate were trying to tell me something. Eventually, I got his business card and we talked more seriously about the internship. My measure of dislike for anything yellow and green was lessening, but still not gone.

#### Hearing it from the Beavers

Later, at a meeting of the OSU turf club, we were discussing where

everyone was headed that summer for their internships. When I mentioned the possibility of working at University of Oregon, the club's response was a host of jeers, complaints, and dirty looks. This worried me about my choice. I asked Professor Cook his opinion and he said, "You know they grow Kentucky bluegrass down there, right?" I replied that I knew and that it interested me. He went on to say that if I could live with working at U of O then he thought it would be a good experience. So I contacted Eric and let him know that I would like to work for him, if he still wanted to hire a Beaver.

#### Life of an intern

I wanted to work hard and show that I was competent with the tasks that I had been given. I thought that to be a good intern I should take as much work off the manager's hands as possible. I also knew part of having a good internship means learning anything you can from anyone possible. But after a few weeks my understanding of a quality



#### **Bluegrass** in Oregon

During my visit to Eugene before my internship, I noticed that some fields were covered with tarps. I later discovered they were growth blankets, which are needed to grow Kentucky bluegrass in the Willamette Valley of Oregon.

Kentucky bluegrass does not generally grow well here. It stays dormant a long time and is more prone to diseases due to the low light levels in the fall winter and spring. These factors cause headaches for most grounds managers in the region. To keep the turf healthy and ready for play, it needs help from the blankets to keep the soil temperatures warm enough in the early spring to bring it out of dormancy. The benefits of using Kentucky bluegrass is that it forms a mat layer which assists in structuring a sturdy playing surface, even in areas of heavy wear. The traditional grass grown on most fields in the area is perennial rye, which does not form that thick mat layer, resulting in areas with large divots and no plant material.

As I learned all this, I realized the reason for Tom's concern towards my working with Kentucky bluegrass. As the weather got warmer, there did not seem to be any problems with the fields related to dormancy as a result of the growth blankets. The fields ended up looking great and playing even better.

- Jonathan Garrett



### Artificial Intelligence

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Verti-Air

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internship began to change. I learned that it's the quality of the work, not necessarily quantity of the work that is important in an internship. Interns should want to learn the "why" of what they are doing, not just that it needs to be done.

On my first turf internship I was advised to, "learn more what not to do, than what to do." Luckily for me, my job at Oregon did not provide me with an overwhelming amount of opportunities to learn from mistakes. Rather, I learned largely from the responsibilities given me. I am glad that Eric was able to assess my abilities and give me tasks that I could handle, setting me up to succeed.

One of my favorite times was when Eric would take me out to lunch. It was a great time for me to talk to him about things going on at work and how he would handle certain situations. Another great opportunity for these conversations was toward the end of the day when the crew had a few minutes to spare.

As far as the maintenance aspects went, it could be pretty routine. Working on the athletic fields with assistant groundskeeper Steve "Dino" DiNatale, I was doing a lot of mowing, edging, raking, and painting of lines and logos. I enjoyed each time I got practice on the painter, and savored every moment in the seat of the mower.

The other great part of the internship was working on the landscaping with the other assistant groundskeeper, Kenny Hoffman. Interesting stories follow Kenny around, whether it's cutting down trees, digging 2-foot deep trenches with a mattock and shovel, or dealing with 25-foot quick coupler geysers, along with other irrigation troubles.

#### Lessons learned

One important thing I was exposed to was the administrative side of grounds management. If Eric was doing something in his office he was more than willing to let me step in and see what he was doing. Scheduling staff, double-checking invoices, and e-mailing coaches the weather forecasts for their up-coming games were some of the things I had not thought about before. Learning this side of the job was very interesting to me, and helped me get a better understanding of what all it entails to be a manager.

I was exposed to a large range of athletic field management. Eric and his crew maintain multiple kinds of turf, such as the grass football practice fields, the synthetic game field, the grass soccer field that is shared with the lacrosse team, the softball field, putting green, and track infield that was being renovated. And I was also exposed to what it's like to be a lone Beaver in a flock of Ducks.

Jonathan Garrett is back in Beaverland at Oregon State and is a student member of the Sports Turf Managers Association.



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# tips to readying your résumé



our résumé is your calling card. It should provide enough information about you to persuade the prospective employer to invite you for an interview. That's it- the total purpose of your résumé is to get your foot in the door for an interview, where

you can sell yourself to the interviewer. To make your résumé a most effective tool for your job search, consider these Top 5 Tips:

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

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

3. When describing your previous job responsibilities write in an active voice, showing how your work provided value, and use bullets. For example, don't say," I was responsible for mowing the football field prior to weekend games." Instead, say, "Improved football field condi-

tions by implementing a consistent mowing program."

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

5. Think about what qualifies you for the job and include it in your résumé, typically under a heading called "Summary of Qualifications." This section can change to meet the requirements that the employer is seeking. It can also be more global and highlight the overall qualities that make you a top sports turf manager and a desirable employee. For example, you might list:

• Certified Sports Field Manager, the credential that validates experience and knowledge, and the commitment to continuing education

- Highly experienced in field renovation Strong team management skills
- · Bilingual in English and Spanish

Don't confuse your "Qualifications" with your "Accomplishments," which should be another section that highlights the noteworthy activities that you successfully completed.

# Make a plan for lightning

ightning safety has been little studied and less practiced. In ancient times thunder and lightning were audible and visible signs of the gods' displeasure: there was no defense whatsoever. Today more than 45 different USA lightning protection codes exist that promulgate ambiguity and confusion concerning reduction of the hazard. There is no Utopia in lightning safety. The dearth of objective data about lightning safety contributes to accidents and injuries. Common misconceptions include: "Lightning never strikes twice in the same place" and "Lightning rods prevent lightning strikes." The ignorance and misinformation about lightning safety increase lightning's social cost in deaths and injuries and economic cost. A disciplined and systematic approach to lightning safety may result in better management of the hazard and reduced costs.

#### Editor's note: The following information first appeared in the Sports Turf Managers Association's October 2007 electronic newsletter and was provided to them courtesy of the Middletown (PA) Area School District's athletic department.

Lightning strikes to people are rare but often fatal when they do occur. Lightning is the most consistent and significant weather hazard affecting athletic participation. In an effort to protect the student athletes, coaching staff, fans and officials from the possibility of a lightning strike, this policy has been designed for the safety of all those involved with Middletown Athletics. The National Severe Storms Laboratory recommends that athletic participation cease when lightning is detected within 6 miles. For our purposes, this will be indicated by the flash to bang method as assessed by the game official, ATC or Athletic Director.

#### Designated chain of command

During an athletic competition, it will be the responsibility of the game event administrator in conjunction with the athletic director and athletic trainer to decide if the event needs to be delayed or cancelled due to the possibility of a lightning strike occurring. Prior to the start of an athletic competition the decision rests with the Athletic Director.

During practices the athletic trainer and athletic director will determine if the team needs to be removed from outdoor facilities. If the trainer is not present, the head coaches or their designated assistant in charge will be responsible for removing a team from an outdoor athletic site. It is recommended that coaches check the weather report before going outside every day, as storms often move very quickly.

#### Methods for detecting lightning

1. Flash-to-Bang: This is the easiest way to estimate how far away lightning is. Count the seconds from the time the lightning is sighted to the time that thunder is heard. Divide this number by five to figure out how

far away the lightning is in miles. Example: If there is 30 seconds between the flash of lightning and hearing the thunder, the lightning is approximately 6 miles away.

It is the policy of Middletown Area High School that if the lightning is 6 miles away or less, athletes must be taken indoors and practice suspended.

2. Strike Alert: This is an electronic portable device used to detect lightning in the area; it detects an approximate distance of lightning. The athletic director and athletic trainer have strike alert devices. If the strike alert detects lightning within a 6-mile range, all athletes must seek shelter indoors immediately.

It is considered safe to return to play 30 minutes after the last flash of lightning or sound of thunder, or as determined by game official, athletic director, and athletic trainer.

If a game or practice has been delayed or cancelled, athletes must report to a designated safe shelter. A safe shelter is defined as "any building normally occupied or frequently used by people, i.e., a building with plumbing and or electrical wiring that acts to electrically ground the structure." Athletes should remain in their assigned shelter until told it is safe to move.

#### Facts regarding lightning safety

• Blue sky and no rain are not protection from lightning. Lightning can strike as far as 10 miles away from rain. It does not have to be raining for

a lightning strike.

• Avoid using a land line telephone except in emergency situations. A cell phone is a safe alternative.

• Avoid using showers in a safe facility, the water and plumbing can be conductors of electricity.

• Minimize your body's surface area and minimize contact with the ground if caught far from a safe shelter. DO NOT LAY FLAT. Lightning current often enters through the ground.

• If unable to reach a safe shelter stay away from tall trees or objects (light poles, flag poles, etc), standing pools of water, open fields, or individual trees. Do not be the tallest object in a field. Crouch down with only the balls of your feet touching the ground. Try to minimize your body's surface area and minimize contact with the ground.

• People who have been struck by lightning don't carry an electrical charge, administering first aid and/or CPR is safe for the responder.

#### You can't win the game, if you can't play the game.



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