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Athletic Fields
Best Management Practices

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The dog days of summer ...

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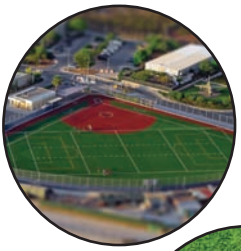
SUMMER 2017
Volume 3 - Issue 2



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PRESIDENT'S MESSAGE

NORTH FLORIDA SPORTS TURF MANAGERS ASSOCIATION

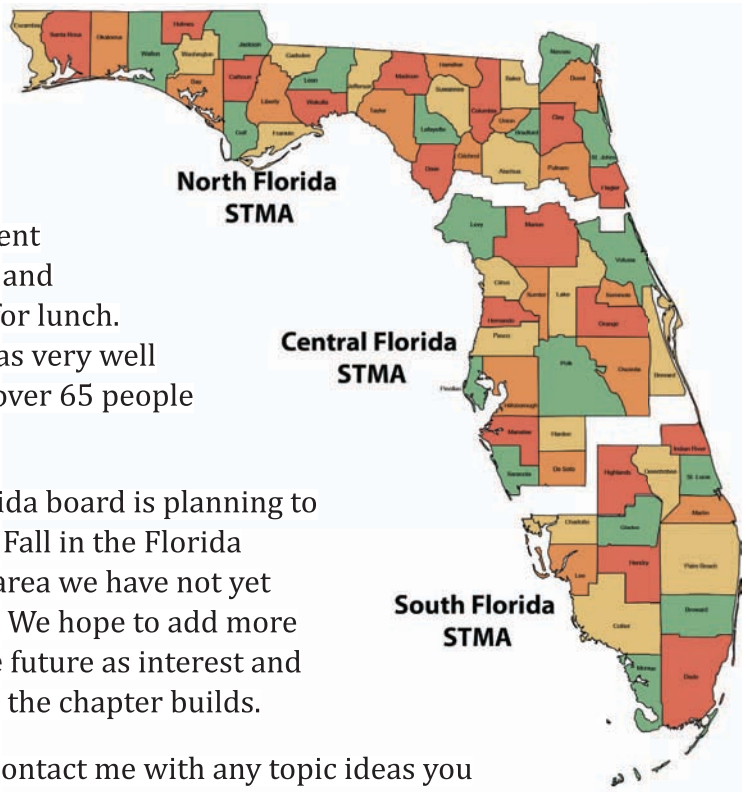
As we move into our third year of publishing ON THE TURF, it has been suggested that it would be nice to hear from other chapter presidents from time to time. In this issue, we have President Mark Clay of the North Florida Chapter with a message, I will turn it over to Mark - **Dale Croft, president of CFSTMA**.

Hello Turfers,

Let me introduce myself. My name is Mark Clay and I am the President of the North Florida Sports Turf Managers Association. I am also the Sports Field and Grounds Manager at EverBank Field, home of the Jacksonville Jaguars. I have been a sports turf manager for over 35 years, and with the help of **Nick Fedewa**, **John Mascaro**, **Ronnie Griffin**, **Jay McCord**, and **Ed Attala**, the North Florida Chapter was formed in December 2006. Back in our hay day, we had two to three meetings a year with 40 plus members. In the past few years, we've had fewer meetings.

Last year our April meeting was held at the Baseball Grounds of Jacksonville. At that time, the baseball to soccer field conversion had begun for the Jacksonville Armada games. Briggs Golf Construction was in the process of a sod conversion changeover that day, so participants could witness the progress throughout the day. We also hosted an educational session lead by Andy McNitt from Penn States Sports Surface Research Center. Harrell's gave a presentation and provided coffee and doughnuts. Erin Harlow from University of Florida IFAS conducted a weed workshop which

provided attendees one CEU. Jacobsen had an equipment demonstration and provided BBQ for lunch. The meeting was very well attended with over 65 people in attendance.



The North Florida board is planning to meet early this Fall in the Florida Panhandle, an area we have not yet held a meeting. We hope to add more meetings in the future as interest and membership in the chapter builds.

I invite you to contact me with any topic ideas you would like to see covered. If you are interesed in helping out at chapter meetings, don't hesitate to let us know.

I also invite you to join / renew your membership in the NFSTMA. Visit CFSTMA.org and click on the membership tab. Make sure you check the "**North Chapter**" box.

To contact me directly, call me at 904-633-6116 or email at Mclay@smgjax.com.

Mark Clay

NSTMA President

CENTRAL FLORIDA STMA

DALE CROFT

The Central Florida STMA had another excellent chapter meeting in March. It featured a presentation from **Paul Mitola** (FDACS) on "Spill Training". I have participated in this training several times in the past it was good to have a refresher. I am not sure if it was the environment or the comradery - but I even learned some extra tips and have a new respect for diapers!

The Plant City Stadium and Softball Complex has been an excellent venue in the past and didn't let us down this time. I want to thank the management and staff of the

Complex. Well, I learned a couple of items myself:

1. Don't let someone taking part in the 50/50 drawing draw the ticket

2. Make sure all shadows have a body connected to them

Chris Key with BASF was responsible for all that great Italian food and if anyone went home hungry it was their own fault.

And, last but in no way least, I need to thank my fellow board members for all the behind the scenes work they do to make this event such a huge success.

Please note - I understand it can be frustrating to receive reminder emails after you have signed up for an event. For those, I apologize. I haven't figured out how to remove a name after they have registered. Again, I apologize for taking time away from your schedule and please just delete the reminders.

Best MANAGEMENT PRACTICES FOR ATHLETIC FIELDS

Best Management Practices or BMPs provide safe, economical strategies that support plant health, quality of play and protection of water resources. Adopting the use of BMPs, coupled with appropriate cultural practices, is a win-win decision.

Due to Florida's unique geology and interconnection to surface and ground water, protecting Florida's natural resources requires proper management of pesticides and nutrients applied to athletic and sport turf fields.

In terms of storm water treatment, "structures" such as a storm water retention pond is installed to treat storm water before it enters ground and/or surface waters. A less costly method to addressing nitrogen and phosphorus loading is the application of "non-structural" BMPs, these come in the form of outreach education, which

By **Don Rainey**
University of Florida
GI-BMP Statewide Coordinator

relies on behavior change to address nonpoint source pollutant loading associated with improper applications of fertilizer and irrigation. Both the Green Industries and Golf Course professions have successfully adopted BMPs as the way to do business. BMPs should have a place within the management of athletic fields as well.

In addition to protecting water quality, BMPs often play an integral part in meeting the needs of sports turfgrass managers with budget restraints. Given that BMPs assist in sustaining turfgrass performance, which is critical to reducing injury and enhancing playability, it is no secret that funding is the economic challenge to maintaining and repairing athletic sports fields. This often comes at a cost to turf plant health and overall sustainability. Yet, BMPs can positively affect the bottom-line by reducing operational expenses with little added cost. For example, proper fertilizer selection and application rate often equates to reduced labor cost and amounts applied throughout the year.

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In this article we will break down some of these BMPs that are recommended by the Florida Department of Environmental Protection and UF/IFAS based on turfgrass response and water quality research. These BMPs support plant health, maintain the quality of play and save money, all while protecting water resources.

MOWING

Warm-season grasses such as Bermudagrass, are often the preferred choice for use on athletic fields in Florida; however, depending on the site and available resources, Bahiagrass or Seashore paspalum may be utilized more effectively. Each has different cultural practices required to maintain plant health and growth.

Typically, mowing practices that protect water quality are not on the mind of the operator, but they can have a profound effect. Integrating the proper mowing techniques, equipment and mowing frequency maintains a dense turf and root health. This reduces stormwater runoff movement and allows time for turfgrass roots to absorb or immobilize fertilizer, pesticides and other containments from leaching into ground water. However, failure to mow on a routine basis and not using the appropriate cut height will negatively impact plant growth, leading to canopy loss, exposed soil and negative impacts on water quality.

BEST PRACTICES

- *Remove no more than one third of the leaf surface according to mowing frequency.*
- *For fine textured turfgrass, use a reel mower (scissor-type).*
- *For Bahia grass, use a rotary mower with routinely sharpened blades.*
- *Avoid mowing in a repeated direction or set pattern to reduce scalping, rutting and compaction.*
- *Under normal conditions, clippings should be allowed to fall back to the turf.*
- *Leave clippings on site; remove clippings only when grass is smothered or interfere with the play.*
- *Remove clippings from sidewalks, drives and other impervious surfaces after mowing.*

❶ MOWING

Also, the proper handling of clippings is important for economic and cultural reasons. Clippings are a source of nutrients and organic value, so recycle back to the turf when possible. If clippings are removed, additional labor and fertilizer must be applied to compensate for these nutrients.

PRESCRIPTION-BASED FERTILIZATION

Adapted from the golf course BMPs, a prescription-based Fertilization approach is practical and efficient by suppling nutrients based on the plant needs. Whenever possible, managers should base fertilization on the specific needs of each field at a given time and not on a calendar-based schedule. For the effective management of nutrients, soil testing should be used in conjunction with tissue testing. Through soil testing, the initial soil pH and P level can be determined. Soil pH is important in determining which turfgrass is best adapted to the soil and may also influence fertilizer choice. In addition, monitoring for deficiencies related to soil and tissue testing can help devise a prescriptive fertilization approach to each area. Fertilizer application equipment should be calibrated routinely. If fertigation is the method of choice, the system should be designed, installed and maintained by a qualified irrigation specialist. To this end, the proper application of fertilizer is more important than the type of product. Avoid excessive and unnecessary fertilization to prevent potential non-point source pollution.

BEST PRACTICES

- *Do not apply fertilizer to dormant or semi-dormant turf.*
- *Do not fertilize if a heavy rainfall is forecasted, especially from tropical or frontal weather systems.*
- *Rate and timing of nitrogen fertilizer depends on the turfgrass species, season of year, level of play and maintenance desired, nitrogen and source applied and location in the state.*
- *When fertilizing, irrigate with ¼ inch of water following fertilization to allow for greater root uptake and minimize nitrogen loss to the atmosphere.*
- *Sweep any fertilizer left on impervious areas back in the vegetative area.*
- *Use deflector shields near boundaries with water and impervious surfaces.*

❷ FERTILIZATION

INTEGRATED PEST MANAGEMENT (IPM)

The application of pesticides should be part of an overall pest management strategy that includes biological controls, cultural methods, pest monitoring, and other applicable practices, referred to altogether as IPM. Education related to use affecting the behavior of pesticides in soil and water and how pesticides should be selected and used to prevent

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environmental contamination is critical. Routinely evaluate the selection as well as effectiveness of the pesticide based on mode of action, life stage of the pest, personal hazards, non-target effects, leaching or runoff potential, and cost.

IRRIGATION

As water demand in Florida continues to grow, potable water supplies will become more and more limited and increase the challenge to use less water while simultaneously maintaining the quality of play. There are many ways to conserve water on athletic fields, including installing well-designed playing fields with appropriate water irrigation devices and controls. Selecting drought-tolerant varieties of turfgrasses can also help maintain an attractive and quality playing surface while minimizing water use.

BEST PRACTICES

- *Develop and implement a quality IPM program.*
- *Train employees in proper pest identification and pesticide selection techniques.*
- *Choose the product most appropriate for the problem.*
- *Mix only the quantity of pesticide needed in order to avoid disposal problems, protect non-targeted organisms, and save money.*
- *Spot treat pests whenever appropriate.*
- *Read and follow all label directions. The label is a legal document.*
- *Make note of any ground water advisories on the label.*

❸ PESTICIDES

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BEST PRACTICES

- *Implement a preventive maintenance program to replace worn components before they cause water, fertilizer and chemical waste.*
- *Perform weekly visual inspections to identify leaks, broken rain sensors or sprinkler heads, and other system malfunctions.*
- *Irrigation rates should not exceed the maximum ability of the soil to absorb and hold the water applied in any one application.*
- *Irrigation water should use the lowest acceptable form of water supply, for example, reclaimed or brackish water.*
- *Calibrate flow meters, soil moisture sensors, rain shut-off devices and/or other automated devices annually by a qualified professional.*

❹ IRRIGATION

Managers should schedule irrigation events for the early morning hours to take advantage of reduced evapotranspiration rates and associated wind drift. How much to apply should be based on the plant depth of root and soil characteristics regarding water infiltration and holding capacity. Determine the amount of water necessary based on the entire root zone. Use a soil moisture probe to determine the moisture levels by feel and visually evaluate the root depth. Periodically reevaluate the root zone, soil characteristics change due to organic matter build-up, compaction and time of season. Do not irrigate to the point of runoff.

How frequently to apply water should be based on visual and/or determined soil moisture deficit thresholds. Visual determination provides many benefits to the turfgrass; it increases drought stress tolerance and prevents excessive application of water based on a preset timer run time. However, visual based run times often coincide with play scheduling, so using more advanced forms of scheduling may be necessary. Predictive models based on water stations or historical data can assist with the run time determination. Computerized systems that are integrated with real-time soil moisture and evapotranspiration sensors provide feedback to accurately determine when water should be applied. To handle wet or dry localize areas, a "cycle to soak" program feature may be used to increase or decrease the amount of water to apply over several program cycles to avoid puddling or ponding.

Responsible irrigation maintenance is necessary for water conservation and cost of operation. A well prepared maintenance plan should be based on four criteria: calibration or auditing, preventative, corrective maintenance and record keeping. Preventative maintenance should include an inspection checklist of system components such

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as pumps, valves, programs, fittings, sprinklers, and check and backflow valves. Also, ensure systems are performing before and after fertilizer and pesticide applications to reduce chemical runoff and leaching. Next, operators should be prepared to correct system failures; for example, unclogging devices, realignment of heads and replacing broken or worn components with the same characteristics as the original components. Last, follow-up with documentation of the event and corrective actions made to prolong the life of the system. Recording keeping provides information that will assist in determining future operation costs and renovation needs.

THE TAKE HOME MESSAGE

BMPs provide environmentally and economically responsible strategies that support plant health, and protection of water resources. Integration of BMPs into athletic field management can result in healthy turf that provides a safe surface. Management of athletic sports fields requires a holistic approach and awareness of the how turfgrass management practices affect turfgrass quality and playability and their effect on Florida's natural resources.

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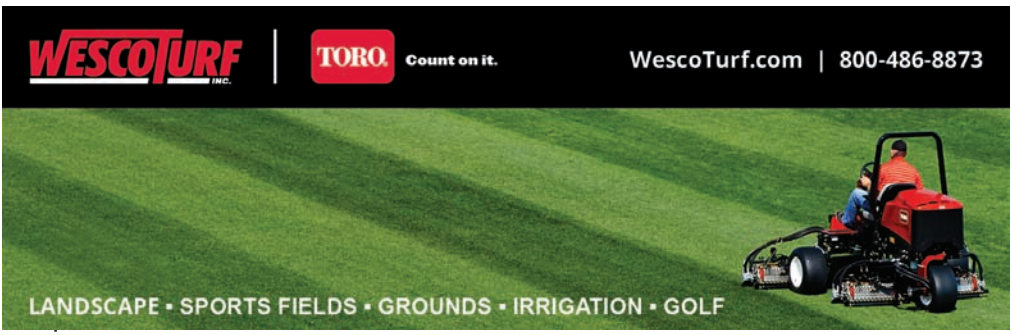

With Travis Shaddox, Ph.D

Q To Soil Test, or Not to Soil Test? That is the question.

Whether 'tis nobler in the mind to accept soil test interpretations and recommendation, Or take arms against non-evidence based practices, and, by opposing, end them. That may be the first time Shakespeare has ever been referenced in a discussion on turfgrasses, but I have never been accused of being normal now have I? Soil testing is a common practice intended to help you decide how and when to fertilize. Many components of a soil test are evidence-based, whereas other soil test values are not. Let's identify which ones you should and should not use.

THINGS TO CONSIDER

SOIL PH

Desired range between 5.5 to 8.0

By **Travis Shaddox, Ph.D.**
Assistant Professor
University of Florida
Ft. Lauderdale Research
and Education Center

Recently, I was in a meeting watching a presentation on soil and tissue testing for turfgrasses when the presenter said, "I don't place a lot of importance on soil pH." I had to bite my lip to keep from saying something. Clearly, the presenter and I have different opinions on this very important soil test value. Soil pH has a profound influence on nutrient availability and soil microbial activity. If you can only choose one soil test value, choose pH or, more specifically, buffer pH. The buffer pH is a measure of the soils ability to resist pH change so the buffer pH should be used when pH

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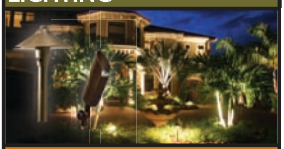

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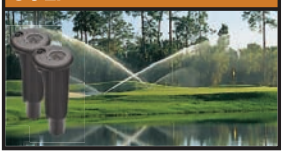

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adjustments are desired. To lower pH, common products include element sulfur (not sulfate) and ammonium sulfate. Lime is commonly used to raise pH.

SOIL SALINITY AND SODICITY

Salinity: species dependent, <3 dS/m
Exchangeable sodium percentage: <15%

Salt issues can be a problem on some sports turf, particularly those fields that are required to use effluent water. Effluent water is becoming more and more common and the quality of effluent water changes from day to day. No turf is immune to high salts, but some species tolerate salts better than others. The most consistent method to reduce salinity is to flush the soil using clean water or rainfall. If you do not have access to clean water, flushing the soil with the same effluent water you are using for irrigation can lower salinity because the flush leaches salts deposited from prior irrigation events. Salts dissociate in water and, therefore 'salt removal products' applied prior to a leaching event have not been shown to enhance salinity reductions in Florida's sandy soils.

In Florida, soil sodium content is not normally a problem because our soils contain so much sand. However, if your soil contains appreciable quantities of clay, high sodium may reduce water infiltration and reduce turf quality. In this case, the addition of gypsum will help to lower the sodium levels.

THINGS TO IGNORE

Basically everything else. Evidence does exist for the use of soil test phosphorus values (> 9 ppm), but tests have not been conducted on Florida soils growing sport turf. Potassium, calcium, magnesium, sulfur, and all micronutrient values have no evidence to support any recommendations for turfgrasses grown on Florida soils. In addition to the element concentrations, the ratio of one element to others (commonly called base saturation) has been proven to be useless by numerous land-grant institutions.

SUMMARY

Soil testing can be used to adjust pH, salinity, and sodicity. Use of any other soil test value to manage nutrient applications to turfgrass in Florida is not an evidence-based practice. A more in-depth presentation on turfgrass soil testing can be viewed on the UF Turf Team's YouTube channel. Just go to YouTube and search for 'UF Turf Team'.

COMMERCIAL MEMBER SPOTLIGHT

Lance Tibbetts

I was born and raised in Westbrook, Maine. My life has always been in some shape or form in the green industry. In order to have enough money to golf with my friends, I worked on my Uncle's horse farm and mowed lawns. My very first job was mowing cemeteries for the City of Westbrook. Those were some of the best and quiet clients I ever worked for. After spending a few more summers working with the City of Westbrook Forestry Department, I enrolled in Southern Maine Community College to pursue a degree in Plant and Soil Sciences.

Upon graduation, I worked on one of the premier golf courses in Maine, the Sugarloaf Country Club (SCC). Then I found myself working in the lawn care industry with Lawnmark/Barefoot Grass. I started out as a spray technician and quickly moved up to branch manager. This is where my love of turfgrass management really started. Everything about turf care, the morning dew on the grass, giving the clients the best lawn in the neighborhood and putting in a good solid day in all kinds of weather is what I really love. In 1998, I took the love of turfgrass and moved it into sports turf management (STM). I returned to Maine as their first ever STM. I spent four years at Westbrook and achieved two STMA "Field of the Year" awards and represented parks and recreation on the Board of Directors for the STMA.

After my second "Field of the Year" award, I yearned to achieve more in my career. I applied for the grounds manager position at the University of New England (UNE). I was honored to receive another "Field of the Year" award for UNE'S Field Hockey field.

Once again, I wanted more challenges. I took a position GCA Services Group at the University of New Hampshire Wildcats, maintaining their athletic fields (two natural and four synthetic fields).

In 2014, my turf management company was awarded the University of Miami athletic fields. Needless to say in two weeks, I was packed, put the house on the market and headed south!

My current position with GCA is Regional Grounds Support Manager. I assist Grounds Managers and Sports Turf Managers in our company from South Carolina to the Florida Keys. My main headquarters is in Florida. It has been a great journey, had plenty of ups and plenty of downs. Lost many loved ones along the way. But, one thing I have learned is it takes time to move ahead in this industry. Many young aspiring STM's want that pot of gold immediately. It will happen, but take your time and enjoy the ride. I have been doing this work for over 34 years and it never gets old.

My family has always been my support and rock – my wife Tonya and my children Jack Nichols, Katie, Ian Brodie, Sierra, and Thomas Tibbetts. I have two awesome grandsons, Julian and Ander.

Life is good. •

Making Your $ STRETCH

To Maximize Athletic Field Performance

By **Jason Kruse, Ph.D**
University of Florida

Many of the recreational and competitive outdoor sports played in Florida utilize athletic fields. Whether it is a pick-up game after school or a professional team sport, a safe playing surface is appreciated by all athletes using the field. Many of the problems associated with athletic fields can be attributed to poor design, poor construction, and/or lack of routine maintenance. Maintaining a high-quality playing surface requires: 1) adequate water drainage *(surface and/or subsurface)*; 2) properly designed, installed, and maintained irrigation systems; and 3) a regular maintenance program that addresses the nutritional and cultural needs of the turfgrass plants. Omitting one or more of these will result in the playing surface failing to perform as expected leading to costly renovations and an increased risk of injury for athletes.

Mowing

Few cultural practices have the potential to influence the quality and playability of an athletic field as mowing. Proper mowing practices promote adequate rooting, improve surface density, and stimulate uniform growth. Regular mowing at the proper height-of-cut is a critical step in maintaining acceptable athletic field quality **(Table 1)**. Mowing frequency should be based on the general rule-of-thumb that no more

Table 1. Mowing Heights and frequency for athletic fields with common or hybrid bermudagrass or bahiagrass

GRASS PRESENT	MOWING HEIGHT (inches)	MOW WHEN TURF REACHES THIS HEIGHT
Common bermudagrass	1½	2 to 2¼
Celebration, Tifway, Latitude 36, TifSport, TifTuff and other improved bermudagrass cultivars (football, soccer, outfields)	¾	1¼ to 1½
Celebration, Tifway, Latitude 36, TifSport, TifTuff and other improved bermudagrass cultivars (infields)	½ to ¾	¾ to 1
Bahiagrass	3*	4

** During the sprots season, these grasses can be temporarily mowed at 2 inches.*

than 1/3 of the leaf surface area should be removed during any one mowing event. For example, bahiagrass maintained at a 3 inch height of

(continued pg. 20)

cut (HOC) would need to be mowed once it reaches a height of 4 inches while common bermudagrass mowed at 1½ inches needs to be mowed again when it reaches a height of 2 inches. If mowed too infrequently, the grass is often scalped resulting in thin turf that is slow to recover. Highly maintained bermudagrass fields will require two to three mowings weekly.

A reel mower produces the finest cut because of its scissor-type clipping method and is mandatory for bermudagrass. Due to the tough stems, leaves, and seedhead stalks of bahiagrass, a sharp, rotary mower is suggested. Flail mowers may be used on bahiagrass but should be used only in low maintenance areas that are not intended for competitive athletics. Clippings are normally returned to help recycle nutrients. However, excessive clippings will block sunlight and form a habitat favorable for disease. Large quantities of clippings should thus be dispersed or removed. For a striping effect, mow strips *(i.e., between each five yard line)* the same direction continuously. The stripes will be most pronounced when ryegrass has been used for over seeding and a reel rather than a rotary or flail mower is used.

Fertilizing

Proper fertilizer rates and timing are essential for wear resistance, quick turf recovery from traffic damage, and for aesthetic considerations. A total of 3 to 5 pounds of nitrogen and 2 to 3 pounds of potassium per 1,000 sq. ft. per year is generally required for bermudagrass, and approximately 4 pounds nitrogen and 2 to 3 pounds of potassium per 1000 sq. ft. per year is generally required for bahiagrass turf used for athletic purposes. In the absence of soil tests, fertilize with a 4-1-2 or 3-1-2 ratio fertilizer at least once yearly. A general nitrogen source such as ammonium nitrate (33-0-0) or ammonium sulfate (21-0-0) can be used during normal summer fertilization to promote rapid growth recovery and color response. Do not apply fertilizer to dormant or semi-dormant turf. This will encourage leaching and/or weed infestation.

Irrigation

Supplemental irrigation is necessary to maintain a desirable playing surface. For Florida's sandy soils, in the absence of rain, irrigation will be necessary a minimum of one to two times weekly during summer to prevent stress on the turf. Many turf managers also irrigate immediately after athletic events and practices. This helps prevent worn areas from

drying out and aids in recovery. In most Florida areas, ¾ inch of water should be applied per irrigation. Irrigating with ¾ inch will wet the entire root zone without leaching nutrients from the soil profile. Do not irrigate frequently *(i.e. daily)* with light rates of water because this encourages shallow turf rooting and increased pest activity.

The irrigation system must be calibrated to determine specific amounts being applied. Calibration can be performed by randomly placing several empty cans throughout the field and measuring the time required to collect the desired amount. Irrigate with ¾ inch water when the turf shows signs of drought stress *(i.e. wilting, bluish-grey color)*. Wait until drought symptoms reappear before watering again.

Remember to irrigate in early spring when day temperatures are warm but night temperatures are still cool. Bermudagrass turf crowns coming out of winter dormancy are especially susceptible to dehydration at time of "green-up."

Dethatching

Removal of thatch *(a layer of undecomposed living and dead organic matter intermingled with soil surface and live plant stems)* is necessary for highly maintained bermudagrass. It is generally not necessary

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for bahiagrass. Vertical mowing, or verticutting, is the preferred mechanical method for thatch removal. It should be timed for spring after active growth has begun, and, if thatch layer is excessive, repeated in mid-summer. Blade spacing should be 1 inch for bermudagrass and 3 inches for bahiagrass. Vertical mow in two directions at right angles deep enough to just penetrate the soil surface. Scalp the turf by low mowing *(1 inch for bahiagrass and 0.5 inch for bermudagrass)* both before and after vertical mowing to remove debris. Any remaining debris can be raked, vacuumed, or blown off, but it is essential that it be removed. Irrigate deeply immediately following debris removal to provide moisture to roots exposed during verticutting. Approximately one week following vertical mowing, apply fertilizer to stimulate grass regrowth. Use 1 lb. of soluble nitrogen *(i.e., ammonium nitrate/sulfate)* per 1000 sq. ft. and immediately irrigate in. Because vertical mowing exposes soil containing weed seeds, it is best to verticut before applying pre-emergence herbicide.

Nematodes

Nematodes infestations can cause turfgrass decline, increase the need for more frequent irrigation, and result in increased problems with weeds and other pests. The damage caused to turfgrass roots reduces fertilizer uptake and weakens the stability of the root zone resulting in increased risk of incidence of player injuries. When nematode population densities get high, and environmental stresses like high temperatures or drought occur, aboveground symptoms may become evident. Symptoms include yellowing, wilting, browning, or thinning out. Grass will die under extreme nematode and environmental stress. Often, as the grass thins out, spurge and other weeds may become prominent. Nematode damage usually appears as irregularly shaped declining areas that may enlarge slowly over time. Nematode symptoms on turfgrasses can be very similar to other factors such as localized soil conditions, fungal diseases, or insects and are easy to misdiagnose. Download our new EDIS document titled “Nematode Management on Athletic Fields” which can be found here: www.edis.ifas.ufl.edu\in126.

Compaction

Coring (cultivation) is the practice of removing a soil core 5/8 to 1 inch in diameter to a depth of 3 to 4 inches. Core cultivation is one of

the most important management practices for competitive playing fields. This procedure relieves compaction, allows better soil-oxygen penetration, and encourages deep rooting. Compaction is especially prevalent along player benches, between hash marks, along sidelines, and in front of goals where traffic is very heavy. Seasonal play-only fields should be cored a minimum of twice yearly, once in the spring (April or May), just before fertilization, and again in mid to late summer. Heavily compacted areas may need to be cored in two directions. More frequent coring is necessary in areas of heavy use, but do so only when the turf is actively growing. For intensively used practice and play areas, plan to core a minimum of 3 to 4 times per growing season. Coring should begin in early May and be repeated monthly, or at least every other month, until cool fall temperatures halt bermudagrass growth or one month before anticipated fall over seeding time. Following each coring, the plugs should be allowed to dry, then pulverized with a vertical mower and redistributed with a steel dragmat. Debris should then be raked, vacuumed, or blown off the field. Irrigate after removing debris, and fertilize several days later with 1 lb. soluble nitrogen per 1000 sq. ft. to encourage rapid grass recovery. In addition to regular coring, athletic fields receiving frequent traffic will often benefit from deep-tine or other soil-cultivation practices.

Conclusion

Our ability to produce a high-quality playing surface often hinges on proper management and implementation of the cultural practices indicated above. Lack of adequate planning can lead to reductions in turfgrass quality, thinning of the stand, and increased weed pressure. In addition, a poorly maintained field will be more prone to blowouts and an associated increased risk to athletes using the field. •

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SPORTS TURF MANAGEMENT AND THE OPPORTUNITY TO DO MORE

I am spending my Saturday putting this article together because I believe in giving back and without the Sports Turf Managers Association and the great people involved I would not be where I am today.

As many that have chosen to make a career out of Sports Turf Management I got my start by mowing my neighbor's lawns when I was 11 years old, at 14 began working on golf courses during the summer then weekends during school. In high school I chose to get in a work program where I could leave school early and go to work. I worked in a machine shop making aircraft bearings and gears. I did that long enough to earn a spot as shop foreman and realized that I would much rather work outside. I then went to work on a golf course full time as a groundskeeper and attended a Turf Grass Management Class at Atlantic Vocational. The rest is a long blur of many classes, seminars and night time college classes all while working full time and raising a family.

By **Tim Legare,** CSFM, CPRP, CPSI
Interim City Manager/Director of Leisure Services
City of Callaway

I have worked in every aspect of landscape and turf grass management from groundskeeper to superintendent and have owned and operated several Lawn and Landscape Installation and Maintenance Companies. Almost 15

years ago I had a successful business and saw an advertisement for a Parks and Recreation Supervisor position with the City of Callaway. For many years since my kids were involved in recreational sports I had a desire to put my turf grass and landscape skills to work on public parks and sports fields. I applied and shortly after sold my business and began my career in Public Service.

Working in Public Service has proven to be both challenging and rewarding. As Parks and Recreation Supervisor I took over the responsibility for six Parks, two Recreational Complexes, a Community Center, an Old One-Room School House and Museum, a Cemetery, landscape medians, grounds maintenance on all City buildings and operation of the City Recreational Leagues.

At this point although I was very confident in my turf grass and landscape skills. I knew very little about the sports side such as baseball/softball field prep, pitcher's mound construction, field and logo painting, sports field and playground safety issues, etc.

After less than two months on the job I was fortunate enough to hear about the Sports Turf Managers Association from a sales representative.

(continued pg. 26)

I became an STMA member in December 2002. In January 2003 I was able to attend the Conference and Trade Show in San Antonio Texas and was like a kid in a candy shop. There were so many informative educational sessions led by industry leaders and I was taking notes and soaking up this valuable information. The trade show was incredible for me, it seemed that everything that I wasn't very sure about I was able to get literature and speak to experienced people about. I connected with people from every level of Sports Turf Management at this conference who were willing to share their experience and knowledge, many have become lifelong friends. I came away from this conference so much better prepared for my first season as a Parks and Recreation Supervisor.

I later became a founding member of the North Florida Sports Turf Managers Association in 2003. I credit the Sports Turf Managers Association to much of my success on the job. In 2005 Director of Leisure Services position with the City of Callaway was created and I was promoted to that position. We were awarded Outstanding Softball Complex that year from USSSA. The mid and late 2000's were busy times adding new facilities such as a Conference Center, Soccer Field Lighting, Walking Trails, Fitness Stations, Concession Building, Restrooms, Museum and Leisure Services Administrative and Maintenance Building. Many of these projects were FRDAP grant funded providing for a great learning opportunity and many late nights getting the documentation prepared.

Being committed to excellence in my chosen profession I decided to pursue the Designation of Certified Sports Field Manager" CSFM". In preparing for the certification test I took an online course through Ohio State University in Sports Turf Management, I learned so much from this class that I would feel confident going anywhere in the world to manage sports fields and it definitely helped me prepare for the CSFM test. I was the second Sports Field Manager in Florida to receive the Certified Sports Field Manager Certification.

There are several turf industry related associations that can be very beneficial to your Sports Turf Management careers. I have been a member of the Florida Turfgrass Association since 1988 and am a recent past board member. I was a Class A member of the Golf Course Superintendent's Association 1992-1997. I have also been a member of the National Recreation and Park Association since 2008. Through NRPA I have received Certified Parks and Recreation Professional and Certified Playground Safety Inspector.

I highly recommend getting involved in a local STMA Chapter the benefits to your career and personal life can be countless.

I'm starting to feel like I'm rambling here so I'll try to wrap this up with a little bit about my most recent opportunity to stretch myself, do more and step out of my comfort zone.

This past January, while attending the Annual Sportsturf Managers Conference and Trade Show in Orlando, I received a phone call from the City Manager and he notified me that he had resigned and that the City Commission would like to know if I am interested in serving as the Interim City Manager. I had been thinking that it was about time for a new challenge although I didn't necessarily see this coming. I had attended almost every Callaway Commission Meeting since 2005 and gained a great deal of insight into how the City operated. I had also served as Acting City Manager many times in the absence of the City Manager. After about 48 hours of careful consideration I notified the Commission that I was willing to do whatever I could to help during this transition while they chose a new City Manager.

On Feb 1st of this year the Commission voted unanimously to appoint me as Interim City Manager. I will tell you that serving as Interim City Manager has proven to be a serious challenge and an incredible learning experience.

(continued pg. 28)

Those of you that work for a municipality understand that you are working for the whole population and your performance is judged by many although you typically answer to one supervisor. As City Manager of a City Manager-run city, you work directly for the Commission made up of a Mayor and four Commissioners. I have done some work for homeowner associations in the past and it is a very similar dynamic, just ten times more political.

Probably one of the hardest things for me to get a grasp on during this time has been to stay as neutral as possible in Commission meetings when the Commission makes decisions and only offer my opinion when I'm asked for it and even then there are many different angles to consider.

Stepping into this position one of the areas that I thought I would need the most help from was the Finance Department. Well I believe that sometimes things happen so that you learn to overcome your worst fears. My first week as Interim City Manager the Finance Director resigned. We are now preparing the FY18 Budget without a Finance Director along with making many banking and finance procedural changes, implementing check scanners and a new vault system.

The City Manager makes the final approval of all hiring, firing, promotions, demotions and disciplinary actions. This is something that I have taken very seriously and many of these decisions tend to weigh heavily on me knowing the long term effect that they have on a person.

The City has a lot of great, very committed employees that go above and beyond for the citizens and the good of the City. Although I try to emphasize the positives it seems that one negative action by an employee seems to outweigh a lot of great work.

One of the most eye opening experiences for me has been dealing with customers on disconnect day for nonpayment of water, sewer and solid waste bills. We hear so many sad stories and as much as I would like to help everyone it just is not feasible. It's so sad to look at a customer's history and see that some have paid reconnect fees over twenty times. We get a number of customer service complaints and when we look at the video in most cases it is evident that the customer came in with an attitude that we were not going to be able to satisfy them. I've been impressed that our customer service representatives show up on disconnect days knowing what they are in for. They have to continue to be polite and use de-escalation tactics while in many cases being cursed and berated.

This is just a little bit of my experience as Interim City Manager for the past three months. A new City Manager has been hired and is scheduled to start in about thirty days. I look forward to being a support for him and going back to my position as Leisure Services Director. I will have a whole new respect for the position of City Manager. Although I have always worked many long hours the City Manager is definitely a 24 hour/7 days a week job. The calls texts and emails are endless and most have to be dealt with immediately.

Wrapping this up as a Sports Field Manager the next time you're trying to get the person above you to assist with a problem coach or parent make sure you have done all you can to handle it. If your needs for employees, equipment or facilities are not their priorities be detailed, persistent and understanding. They are probably juggling way more than you could ever imagine.

I hope that what I have written is in some way helpful to you. Although today you may be mowing grass or painting a field if you prepare yourself there's no telling what tomorrow may bring. •

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ON THE TURF TIPS FROM STMA

Here are a few tips from STMA on the care of your Spring season turf. Please keep in mind that they are just tips and you will need to develop a plan that works for you.

JUNE - AUGUST

Mowing

Recommended mowing heights 1-1.5" and should not exceed the 1.5".

The general rule when mowing a stand of Turfgrass is not to remove more than 1/3 of the total leaf blade at one time.

Some of the effects from removing more than 1/3 of the leaf blade at one time are:

- Negatively affects photosynthetic production of food
- Depletion of the carbohydrate reserves in the plant roots
- Graying or browning of leaf tips
- Root growth restriction
- Weed encroachment
- Increased susceptibility to damage from insects, disease, drought and traffic
- Excess clippings

Warm season grasses are actively growing throughout the summer months. Mow as often as needed, which is generally 2-3 times a week.

Irrigation

Recommended amounts per week (minus any rainfall) is 1" to 1.5".

It is important to know all the soil properties and that native soil root zones containing high amounts of clays and/or silt typically have high water holding capacity. Sand based root zones have little water holding capacity and may percolate water very quickly.

Soils that have a good aggregation permit more rapid infiltration than a soil with poor structural properties. If a soil is compacted, aggregation is reduced or absent. Compaction at or near the soil surface can greatly reduce the rate of water infiltration.

Always water at the first sign of wilt.

Fertilizer
Recommended amount of nitrogen per month is 0.5-1.5 lb N/1000 sqft.

Make sure to check with your local and state agencies for any restrictions on applying nutrients. For some areas with restrictions on inputs or other management program constraints or objectives, there are organic and microbial products available in the marketplace. STMA encourages you to talk with vendors and practitioners for recommendations to fit your specific needs.

Cultivation
Soil cultivation should be done once a month when the turf is actively growing. If the turf is undergoing stress then soil cultivation should be avoided. Soil cultivation is a necessary practice in order to keep bermudagrass fields in acceptable condition. Bermudagrass produces significant amounts of thatch that should not exceed .5" throughout the growing season. When cultivating, 2-4 passes in different directions should be made on the field.

Some forms of cultivation are Hollow tine, Solid tine, Shatter coring, Water jet coring, Slicing, Vertical mowing, Spiking, Deep tine, Deep drill and drill and fill.

Weeds
Healthy, dense stands of turf are the best way to prevent disease, weed or insect infestations. Following proper cultivation practices throughout the year, including fertilization, irrigation, mowing, seeding, and soil cultivation, can minimize and sometimes eliminate pest problems.

Make sure to check with your local state agencies for any restrictions on applying pesticides.

Insect
Our little friends are also waking up, so be on the look out for Mole crickets, Armyworms, Cutworms, Chinch bugs, Sod webworms, Rhodegrass scale (mealy bug) and White grubs.

Diseases

These diseases could possibly occur in this time frame:

- brown patch
- dollar spot
- fairy ring
- pythium blight

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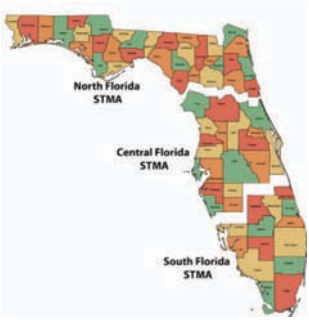
If vendor, type of business: _____

Florida's STMA Chapters welcomes new members. We are a very inclusive organization and have a membership category for anyone interested in learning more about sports field management.



____ **$50 Sports Turf Manager** - If you are primarily responsible for managing or maintaining a sports field(s). This position is an eligible voting member and hold elective office.

____ **$35 Sports Turf Manager Associate** - If you are primarily responsible for managing or maintaining a sports field(s) and your organization already has a Florida STMA chapter member employed. The Associate(s) has the same benefits and privileges as the Sport Turf Manager. Dues are lower because of multiple members (groundskeepers, turf specialists, grounds maintenance, etc.).

____ **$50 Academic** - If you are in teaching, extension or research. This position is an eligible voting member in the Chapter and hold elective office.

____ **$75 Commercial** - If you work for a company engaged in a commercial enterprise providing services and/or products to the sports turf profession (consultants, architects, designers, contractors, management companies, distributors and manufacturers, etc.). This position is an eligible voting member and can hold elective office available to the commercial category.

____ **$50 Commercial Associate** - If you are the 2nd person (or more) from a commercial company. All Commercial Associates **must** first have a Florida STMA Chapter commercial member at their company before the lower dues category can be selected. This is a non-voting member and not eligible to hold office.

____ **$35 Affiliate** - If you are indirectly or on a part-time basis involved in the maintenance/management of sports field(s) (coaches, athletic directors, volunteers, or full-time students). This is a non-voting member and not eligible to hold office.

After being accepted for membership, members of any Florida Chapter have the same member benefits and privileges in all chapters except the right to vote and hold office.Voting rights and right to hold office are restricted to a member's home chapter, defined as the chapter to which member's dues are paid. Members may only claim Home Chapter membership in a single chapter.

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