

opening the drain valve for each zone and the main line. Once the valves have emptied, the manual drains must then be closed. The backflow devices and irrigation controllers also need to be winterized.

With either of the systems, it is important to activate each valve to drain water out of the valve and allow air to enter into the system to slowly push water toward the drains.

BACKFLOW WINTERIZATION

There are several types of backflow devices or assemblies used in irrigation systems that are connected to potable water systems. The most common is a pressure vacuum breaker. In order to winterize this device, open the top of the pressure vacuum breaker and remove the internal discs and springs. Storing these components near the irrigation controller makes them easier to find come springtime. Turn the handles on the two ball valves and all test ports to a partially open 45 degree position. Ball valves, when fully closed or fully open, will trap water in between the ball and the valve housing. The valve housing will crack during a freeze if not left partially open.

Some newer pressure vacuum breakers are freeze resistant, with a built-in relief valve to protect the internal components and the body from freezing. It is not necessary to remove the internal components in these devices.

The other types of backflow assemblies used in irrigation systems are a reduced pressure principle backflow device, or RPZ or in some areas a double check valve is permitted for use on irrigation systems. In either case, it is usually best to remove this device completely during the winter and store indoors. Then cap the pipes to the irrigation system. If removal of the backflow device is not possible, carefully follow the manufacturer's instructions for winterization. Each manufacturer has specific instructions for winterizing.

IRRIGATION CONTROLLER AND RAIN SENSOR WINTERIZATION

To prepare the irrigation controller for winter, simply turn the controller to the

“off” or “rain shutdown” position. You can also disconnect the power and remove the battery, but this is not necessary. It is important not to allow the controller to cycle through an irrigation schedule without water in the system because the remote control valves require water to move through the solenoid assembly for cooling purposes.

If your irrigation system is equipped with a rain sensor or a soil moisture sensor, it is not usually necessary to cover or remove the sensor for the winter. Check with the manufacturer to make sure the sensor does not require any special instructions for winterization.

PUMP WINTERIZATION

Centrifugal pumps have a drain valve located at the base of the pump housing that needs to be removed and stored for the winter. The power supply for the pump should also be disconnected to prevent the pump from being accidentally turned on without any water, as a pump running without water will quickly burn up. Additionally, if the pump is drawing water from a lake or stream, the intake hose has a foot valve located at the base of the suction line. It is necessary to completely remove the intake or suction line from the water and store it for the winter. Sometimes a check valve is also located on the discharge side of the pump, which also needs to be removed and stored for the winter. Any part of the pumping system that can be exposed to freezing conditions will need to have the water drained to prevent damage. Often there are drain plugs or valves meant to be opened to facilitate drainage.

Preparing an irrigation system for winter can be a complicated process. An improperly winterized irrigation system can be an expensive repair the following season. Save time and money next year by investing in proper winterization of the irrigation system now. ■

Tom Barrett is the owner of Green Water Infrastructure, a consulting company that integrates water resources for sustainable site development. He can be reached at tom.barrett@thinkwi.com.

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THE VALUE OF IMPLEMENTING AN INTERNSHIP AT YOUR FACILITY

MANY STMA MEMBERS employ summer interns. If you do not have an internship program at your facility, consider developing one. It is an excellent way to give back to the industry, have fresh, energetic help during a busy season, and legally review the work performance before hiring an employee. Helping students develop their potential through an internship makes the industry stronger.

RECRUIT AN INTERN AT CONFERENCE

The STMA Annual Conference in Long Beach in January offers an excellent opportunity to recruit staff or hire a summer intern. More than 150 students attend the conference including scholarship winners and student challenge competitors. These highly engaged students are interested in learning about internship and employment opportunities in the industry.

Start by placing a listing of your opening on the STMA Employment Board. Email it to STMA before the conference, or bring it with you. STMA will have a job board for displaying openings. Students will also be bringing their résumés to post on the board. If you are not able to attend the conference, STMA will post your opening at the conference. Students also post résumés in STMA's online career center, so if you are not at the conference, you will have an opportunity to see résumés.

Provide enough detail in your internship listing so that those who apply know the salary range and internship requirements. Consider offering housing or a housing allowance, meals, and a bonus structure. These are strong recruiting tools. Students also like to know about the learning opportunities they will have by interning at your facility. Be sure you do not view your intern as seasonal help. As the manager of your facility, you know that you have some repetitive and routine tasks that must be accomplished. If you have an intern working for you, be sure to expose him or her to a variety of activities designed for the learning experience. The internship must allow the student to build skills and apply them to problem solving situations. This

of course includes repetitive tasks, like mowing, but it should also include so much more.

Note on the internship listing if you are available during the conference to meet prospective candidates. Offer your cell phone number, or information on how you can be contacted. The STMA host hotels and the Long Beach Convention Center offer many places for you to meet candidates and start the interviewing process. Even if you choose not to officially begin interviewing, you can judge quite a bit about a person by observing their behavior in an informal setting.

SET EXPECTATIONS

From your job description, create a well-defined plan of activities and job tasks for the intern. The intern should be put in a position that requires long hours and an "on-call" status so that there is a good understanding that sports turf management is not a typical 40-hour-a-week job. When interns experience true-to-life working conditions, they have fewer surprises early in their careers.

Once you have the detailed plan, sit down with your intern and go over the plan. Each intern will possess different capabilities and bring a different level of experience. Find out what the student knows, wishes to learn, and needs to learn. Be sure to include appropriate training and build in exposure to management duties, such as attending meetings, interaction with coaches, budgeting, human resource items, etc. Set up a review process after the first few weeks to be certain your expectations and that of your intern are being met. Savvy students are asking employers for the opportunity to learn a wide range of skills so that they will be better prepared to transition from the classroom to the workplace.

Courtesy of Raechal Volkening, CSFM, STMA offers the internship handbook she authored on our website, www.STMA.org (Get Involved/Students). This 246-page book introduces students to the many different aspects of internships, helping them to set their expectations and make the most of their experience. The concepts outlined in the handbook may also be helpful to STMA members who are developing internship programs. ■

Why participate in an internship program?

INTERNSHIPS can be vital in helping determine career goals. Most students don't know what they want to do after graduation, and an internship can be an ideal way to remove some of the mystery of the "real world."

Working as an intern can help you determine if turf management is the proper career path for you. It may even help you decide which area of turfgrass management best matches your personal and career goals.

Valuable hands-on experience is an important reason to consider an internship. While your college education is highly important in becoming a productive turf manager, you will need more than just a college degree to be successful. Hands-on experience will help you know how to deal with real world situations and management issues. You will also be exposed to the work schedule of the turf industry, which is in dramatic contrast to that of college.

People probably tell you regularly that you need to "network." Were do you begin? An internship is a great place to start building a network of professional contacts.

This work history can also be showcased in your resume. In order to obtain that dream job after graduation, employers will be looking for real world experience in addition to your formal education. A quality internship is a very efficient way to obtain the practical experience employers are looking for.

People probably tell you regularly that you need to "network." Were do you begin? An internship is a great place to start building a network of professional contacts.


For these reasons and many more, you are strongly urged to read this guidebook in its entirety and participate in a minimum of one internship during your college career. ■

JOHN MASCARO'S PHOTO QUIZ

Answers from page 17

THE REASON for the brown turf in the end zone of these four fields might surprise you. This 25-field sports complex is located on the University of Massachusetts Amherst campus. Located approximately 6 to 8 feet below the playing surface is the university's main steam tunnel. The steam pressure that courses through this tunnel is used to generate electricity, which supplies the energy needs of the campus, and then the steam is piped to buildings on campus, where it is used for heating and cooling. This steam not only creates heat for the university in the wintertime but the steam pressure also is used to drive the air conditioning compressors in the summertime. The extreme heat generated in the soil above the tunnels heats up and dries out the soil, causing this brown area to appear each summer. Conversely, in the wintertime the soil temperatures in January can reach 90 degrees which melts the snow cover in that area and it's the only spot on campus they can grow grass on in the wintertime.

Photo submitted by Ryan McGillivray, a junior in Turf-grass Management at UMass Amherst and part time grounds crew worker for the University Landscape Management Department under the direction of Gary Glazier.



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



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TEAM'S SUCCESS LEADS TO NEW FIELD AT U OF AKRON



NATIONAL CHAMPIONSHIPS and close finishes tend to bring a lot of attention to collegiate athletic programs and in the case of the men's soccer team at the University of Akron in Ohio, that attention translated into a new, state-of-the-art natural turf pitch. Within a year of opening the new soccer facility, Akron beat Louisville 1-0 to win the NCAA men's championship.

"At the behest of Coach Caleb Porter we wanted to create a European atmosphere with our new field," said Ted Curtis, the university's vice president of capital planning and facilities management. "That meant seating close to the field and natural grass."

Curtis said the men's team has

been competing at a high level for years but the straw that broke the camel's back regarding their no-drainage home field came 3 years ago when heavy rains dictated that the team give up a home NCAA playoff game, which they lost. The new field has a chevron drainage system under it and a continuous slotted drain around the field.

"The number one reason we built a new field on a new site was to get more seating, followed by needing to eliminate the drainage problems," said Curtis. "We also had bad lighting, with leaning telephone poles and not enough light to televise night games."

Curtis said he was "extremely enlightened" by working with the turf

professionals who designed and built the field, including consultant Stan Moscrip of Athletic Field Development, LLC. "He really knew his business; I was so impressed, for example when he was checking the work of the GPS-operated laser leveler. My hat's off to the turf industry."

Curtis relayed a story that turf managers can appreciate. While speaking at a function, Coach Porter said, "My grounds people tell me ..." and went on to make his point. Curtis rightly believes that that statement shows the good relationship his grounds staff has with their championship winning coach.

WINNING RELATIONSHIP

Cub Cadet Field was really born out of a great relationship between the University of Akron and Cub Cadet. "Cub Cadet equipment is used to help care for the grounds, we've filmed our products in use on campus and hired interns from their top-ranked programs," said Jeff Salamon, Cub Cadet director of brand marketing. "So considering Cub Cadet's commitment to caring for high-profile grounds, campuses and yards, the opportunity to have our name associated with one of the most impressive campuses and a showcase, state-of-the-art soccer fields in the country was a natural extension of this relationship."

A commitment to impeccable grounds care extends beyond the playing field. In fact, the University of Akron has been recognized nationally as Campus of the Year multiple times. It is a remarkable institution—progressive and innovative—in a very vibrant, thriving market that is important to Cub Cadet. "The opportunity to extend our relationship with a university that fits so closely with our brand was a very exciting opportunity that really got our attention," Salamon added.

"Cub Cadet's reputation is progressive, innovative, premium quality and high performance, qualities that can also be said of the many universities and colleges like the University of Akron and its National Championship soccer team. The fact that we can also leverage the visibility of a #1 ranked college team in an important geographical market and to the university and college market made this a very smart decision for our brand." ■

SMART PRACTICES FOR REEL MOWERS

ACHIEVING GREAT AFTER-CUT APPEARANCE isn't purely a function of machine adjustments. It is an equal combination of precise machine adjustments, smart maintenance practices, and proper agronomic practices. Achieving two while neglecting the third can lead to poor turf conditions or an unsightly after-cut appearance.

PRECISE MACHINE ADJUSTMENTS

The cardinal rule when setting up the cutting units within a machine is consistency. All cutting units within a machine and all traction units within a fleet should be set up the same for consistent results. Many times, an operator or technician will experiment with different settings or accessories on one or a few of the cutting units and leave the other cutting units on the machine untouched. This typically leads to inconsistent cut quality and appearance. If things appear to go awry or you've lost track

of what adjustments have been made, one quick fix is to revert back to factory settings and start from there.

Knowing the true effective height of cut is also important to the health and appearance of the turf. A cutting unit height of cut is usually set in a shop using a metal bar across the rollers to simulate the surface on which the cutting unit rests. The problem with this bench set height of cut is the actual surface on which the cutting unit rides is not stiff like metal—it's grass. Grass absorbs and cushions some of the weight, and it can give even more if it is wet. Because of this, the effective height of cut, or the height at which you are truly mowing the turf, is usually much lower than the bench set height. Cutting the turf lower than you think you are could very well lead to after-cut appearance issues. An effective tip to improve after-cut appearance is to raise the bench set height of cut.

Using the optimal clip rate, a more complicated concept is critical to achieving high quality after-cut appearance. Although unnoticeable to the eye, reel mowers leave a subtle scallop pattern, similar to waves on water, on the surface of the turf. The peaks of the "waves" are created by the reel blades and bedknife working together to gather and clip the grass. Ideally, the distance between the wave peaks, or the clip rate, should be equal to the height of cut.

The factors that affect the distance between the wave peaks are the frequency at which a reel blade hits the grass (a combination of the number of reel blades and the speed at which the reel is spinning) and the forward ground speed of the cutting unit. If the reel speed is too slow in relation to ground speed, there will be too much space between wave peaks, resulting in visible clip marks and uncut grass. If the

reel speed is too fast, the reel blades will unnecessarily impact the grass blades multiple times before being cut. This can lead to turf tearing and leaf tissue damage which is a visual eye sore and is detrimental to the long term health of the turf.

SMART MACHINE PRACTICES

Keeping reels and bedknives sharp is critical to achieving good quality of cut and after-cut appearance. Whether it is cutlery, a saw blade or a mower reel, blades cut cleaner and more accurately when they are sharp. Dull reels and bedknives tend to tear grass versus cutting it. This can make the after-cut appearance less attractive and endanger the health of the turf.

Light bedknife-to-reel contact will ensure a good after-cut appearance, too. With light contact between the bedknife and the reel, the two act like a pair of scissors to clip the grass. This light contact setup also serves to act as a self-sharpening mechanism for the two blades. This can lead to less maintenance through a longer service interval.

Verticutting is a practice vital to an attractive after-cut appearance and overall turf health. Verticutting is the process of using vertically rotating blades to remove some of the horizontal growth and thatch that occurs around a grass plant. This process provides several benefits to the turf: it opens the turf canopy to allow for more sunlight exposure, it allows top-dressing to penetrate into the plant and soil more easily, and it forces the plant to stand up straight and focus plant energy on vertical growth rather than horizontal growth. This emphasis on vertical growth leads to a more uniform turf surface, which then leads to a higher quality of cut.—provided by The Toro Company. ■

OFTEN OVERLOOKED GRINDING ADVICE

TURF MANAGERS and technicians all seem to have their own ideas on when and how to grind reels. For some, their grinding philosophies are as guarded as a certain colonel's seven secret herbs and spices.

So, for an expert look at reel maintenance, we asked Erik Sides, training manager for Jacobsen Turf Equipment, to give a few basics superintendents and technicians should keep in mind when it's time to grind.

Continued on page 44

New aerator model on market

Precision Welding has introduced its ProAerator commercial series of aerators in the USA. Available in four models with sizes ranging from working widths of 39" to 102", complete with closed spoon (core) tines or slicing blades which are independently mounted for easier turning and minimal turf damage. Mounted on a 1" steel shaft, tines are manufactured of temper-hardened steel and have oil impregnated Teflon-coated tine bearings with grease fittings for ease of maintenance and extended life. Commercial models are built using a welded 1 1/2" square solid steel frame with heavy duty expanded steel shields which serve as weight racks. Also available is an optional water tank for weight. Units are available with tow behind draw bar or Cat. 1, 3-point hitches. An optional tow-behind kit is available for use with all terrain vehicles.

Precision Welding



TurfMuncher field reclamation machine

Now turf manufacturers and field owners and builders have a sustainable alternative when it's time to replace existing turf field installations. TurfMuncher from Field-Away provides a cost-effective and efficient means of removing turf sports fields that need replacement. TurfMuncher offers an opportunity to reclaim and recycle used turf and infill. TurfMuncher is towed by a 25-hp hydrostatic drive tractor, and its hydraulics are powered by a separate 40-hp gasoline engine. After the turf field is pre-cut, TurfMuncher lifts the turf and infill in panels up to 15-feet wide and then separates up to 98% of the infill from the turf and deposits it into carts, buckets, or bags. Finally, the turf is rolled and doffed in rolls up to 250 feet. The TurfMuncher can reclaim up to 30,000 square feet of field turf per day.

FieldAway



Ariens' professional 36 Sno-Thro

Ariens Company offers the Professional 36 Sno-Thro with a 342cc Ariens Polar Force engine by Briggs & Stratton, which removes snow from sidewalks and large areas with its 36-inch clearing width. The all-steel, 16-inch serrated auger and three-blade, 14-inch steel impeller enhance clearing ability. A 50-foot discharge range ensures that snow lands outside of the clearing path of the machine. Automatic traction control optimizes maneuverability, and with no levers or triggers, steering is effortless. The Sno-Thro also features a 120-volt electric start with recoil backup, a 3.2 quart fuel capacity, 6 mph forward and 2 mph reverse speeds.

Ariens Company





New UTV plows from THE BOSS

THE BOSS UTV plows are available in two models, the 6'6" Power-V XT and the 6' Poly Straight-Blade Snowplow, and feature many of THE BOSS' Smart Technology systems for improved plow durability and performance. A High-Performance, Fully-Hydraulic System offers the highest blade lift height available for unmatched snow stacking capability. The hydraulic pumps are fully enclosed to protect against corrosion and hydraulic freeze-up. Operation of the hydraulic and electrical system is done with the touch of a button from inside the cab. A unique Sloped-Profile Undercarriage does not hinder ground clearance or inhibit trail riding when the snowplow is detached.

The BOSS



Sectional Sno-Plow for smaller equipment

Sectional Sno-Plow has developed a line of plows to be used with compact equipment. The LD plows are compatible with several types of lighter-duty equipment including backhoes, skid steers, compact loaders, and tractors. Designed by an experienced snow and ice management contractor, the LD snow pushers are ideal for facility managers and snow and ice control professionals.

Arctic Snow & Ice



Husqvarna snow throwers

The Husqvarna ST 121E single stage snow thrower has a 21" operating width and was developed for areas with moderate to heavy annual snowfall accumulation. With a SnowKing engine, levers on the control panel adjust the direction of the snow discharge chute. Armed with LED headlights, electric start and safety key switch for quick engine shutdown. Trac Drive dual-stage snow throwers (1827EXLT and 1830EXLT) include more standard features than comparably priced competitive units. Powerful LCT "SnowKing" 414cc engines on both the 27" and 30" operating width units provide the performance necessary for deeper snow drifts and greater transport speeds. Power steering, heated handles and convenient step bar for tilt back and easier transportation.

Husqvarna



Honda hybrid snowblower

The hybrid configuration of the HS1336i model combines a gasoline engine that simultaneously drives the snowblower auger/fan apparatus (clearing and throwing the snow) and charges the battery, with the electric motors (two in parallel) controlling the track drive forward propulsion. Equipped with the Honda iGX390 four-stroke engine, the operation of the HS1336i results in lower fuel consumption and lower emissions.

Honda Power Equipment



Pro-Tech introduces Sno Blower skid steer attachments

Pro-Tech introduces two new Sno Blower skid steer attachments as a complement to its line of Sno Pusher containment plows. The Sno Blowers are ideal for quickly moving large amounts of snow, especially when stacking or piling the snow is not an option. The line the BL72S (74.5 inches wide by 38.5 inches high) and the BL78S (38.5 inches high by 80.5 inches wide). Both models feature a 20-inch fan diameter, a 14-inch auger diameter, and a maximum throwing distance of 40 feet. Thanks to universal coupler mounts, they easily attach to skid steers from all major manufacturers.

Pro-Tech



SnowEx releases new V-Maxx spreader

SnowEx introduces the V-Maxx 8550 High Output spreader. Featuring higher material feed rates than other available V-Maxx spreaders, the new unit is ideal for snow and ice professionals looking to spread high volumes of sand in one pass, rather than making multiple passes to achieve a heavy application. Offering a 2-cubic-yard hopper capacity, the V-Maxx 8550 features a new transmission with a gear ratio of 40:1. This allows the unit to spread 295 to 680 pounds of material per minute (3.6 to 8.3 cubic feet per minute), which triples the rate of the comparable V-Maxx 8500 model.

SnowEx



Gravelly's PM-3084 triplex reel mower

Gravelly offers the PM-3084 triplex reel mower, as part of its specialty line. The PM-3084 features a Kawasaki 27-hp engine, 12-volt electric start, 7.5-gallon fuel capacity and hydraulic driven Legendary Locke reels. Gravelly's PM-3084 includes three 30-inch, double roller, full-floating hydraulic drive head assemblies and varying cutting heights from 0.5 to 2.5 inches. The mower also comes with standard ROPS installed. Additional features and benefits include: Yoke-style, dual rear-wheel steering to eliminate turf damage; one pedal forward, neutral and reverse for precise speed control; 24- x 11.5-12-inch turf tires for superior floatation for stability and a smoother ride; hydraulic lift for quick and easy transport; and 2-year warranty.

Gravelly Turf

For more information on any of these products, please visit www.greenmediaonline.com/productportal

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Set Alongside a picturesque harbor on the beautiful Pacific Ocean, Long Beach is a dream for both conference attendees and exhibitors alike. Small enough to call your own for any number of days, yet offering the experience, diversity and variety of a much larger city, Long Beach truly has it all—the best of Southern California dining, entertainment and culture all within an easily accessible area. With three major airports serving the greater Los Angeles area, getting in and out of Long Beach is easy as saying LBC!

The STMA Conference and Exhibition will bring together more than 1,500 people from around the world to learn, live and love all things sports turf. Sixty-three educational sessions given by 55 speakers, presented over three full days include classroom, hands-on, panel and demonstration platforms. More than 150 companies will populate the trade show floor, making for the largest international event dedicated specifically to sports turf.



We hope you can join us in Long Beach for the *must attend* educational, networking and tradeshow in the industry. See you at the beach... surfs up!

Register to attend online at www.STMA.org beginning in September
Interested in exhibiting or sponsoring events in Long Beach?
Call the STMA Show Office at (866) 847-8623

F.O.Y.

Field of the Year



Denson & crew handle salt, weather to win College Soccer award

THE FIELD AT COBB STADIUM, University of Miami, Coral Gables, FL, was named the Sports Turf Managers Association's 2010 College Soccer Field of the Year. Chris Denson led a crew that includes Geovani DeArmas, German Larios, and Jose Gutierrez.

From Denson's award entry:

"There are several maintenance challenges

we deal with throughout the year. Due to the close proximity to the ocean, there is a small amount of salt water intrusion in our irrigation well. If the well is drilled any deeper, the field would be irrigated with brackish water. Due to the shallow fresh water table, the suction line can't be raised to fresher water. This situation is countered with lime and chelated calcium applications and infrequent irriga-

tion during the rainy season due to large amounts of rainfall.

"Another challenge we have is the variety of turf we have. Soccer has GN-1 variety the same as the practice football field. Although the GN-1 variety fits the application due to the amount of activity the field receives, there is no sod farm producing this variety in the state of Florida or the joining



Monthly maintenance and fertility program

Weeds are spot treated 1 time per month with 3 gallon pump sprayer. 95% of weed infestation is goosegrass and Southern signalgrass.

Insects are spot treated as necessary if past threshold. Only insects past threshold are mole crickets and fire ants. Top Choice is applied.

Beneficial bacteria are applied 1 time per week throughout the year.

Soccer field to track is edged two times per month throughout the year.

No fungicides have been applied to field in 7 years of employment.

JANUARY: outdoor/indoor track on field

- 0-0-22 applied @ ½ lb. K/1000ft²
- 14-5-14 with minors applied @ ½ lb. N/1000ft²
- 8% Chelated Calcium applied @ 4oz./1000ft²

FEBRUARY: outdoor/indoor track/ soccer individuals on field

- 0-0-22 applied @ ½ lb. K/1000ft²
- 14-5-14 with minors applied @ 1/2lb. N/1000ft²
- 500 lbs. Lime applied

MARCH: outdoor track/soccer spring practice

- 14-5-14 with minors applied ½ lb. N/1000ft²
- 500 lbs. Lime applied
- 8% Chelated Calcium applied @ 4oz./1000ft²
- 12-0-12 AS with chelated Fe applied @ ½ lb. N/1000ft²

APRIL: outdoor track/ soccer spring practice

- 14-5-14 with minors applied ½ lb. N/1000ft²
- 500 lbs. Lime applied
- 12-0-12 AS with chelated Fe applied @ 1lb. N/1000ft²
- Aerify with Aeravator aerifier ½" tines
- Topdress 1/16" 220 sand

MAY: outdoor track/ soccer camp

- 14-5-14 with minors applied ½ lb. N/1000ft²
- 500 lbs. Lime applied
- 8% Chelated Calcium applied @ 4oz./1000ft²
- 12-0-12 AS with chelated Fe applied @ 1lb. N/1000ft²
- 12-0-0 with minors liquid applies @ 4 oz./1000ft²

JUNE: outdoor track finals/ soccer camp

- 14-5-14 with minors applied ½ lb. N/1000ft²
- 500 lbs. Lime applied
- 12-0-12 AS with chelated Fe applied @ 1lb. N/1000ft²
- 12-0-0 with minors liquid applies @ 4 oz./1000ft²

JULY: soccer camp

- 14-5-14 with minors applied ½ lb. N/1000ft²
- 500 lbs. Lime applied
- 8% Chelated Calcium applied @ 4oz./1000ft²
- 12-0-12 AS with chelated Fe applied @ 1lb. N/1000ft²
- 12-0-0 with minors liquid applies @ 4 oz./1000ft²
- 12-0-0 with minors liquid applies @ 4 oz./1000ft²
- Verticut 4 directions and remove debris
- Aerify ¾" core tine and remove cores
- Topdress ¼" 220 sand and roll

AUGUST: fall soccer/ fall football

- 14-5-14 with minors and Ronstar applied @ 300lbs./acre
- 500 lbs. Lime applied
- 12-0-12 AS with chelated Fe applied @ 1lb. N/1000ft²
- 12-0-0 with minors liquid applies @ 4 oz./1000ft²
- Aerify goalmouths and center of field with 3/8" solid tines
- Liquid silicone applications on goalmouths and center of field
- 21-0-0 applied to goalmouths and center on field @ ¼ N/1000ft²

SEPTEMBER: fall soccer/ fall track/ fall football

- 14-5-14 with minors applied ½ lb. N/1000ft²
- 500 lbs. Lime applied
- 8% Chelated Calcium applied @ 4oz./1000ft²
- 12-0-12 AS with chelated Fe applied @ 1lb. N/1000ft²
- 12-0-0 with minors liquid applies @ 4 oz./1000ft²
- Aerify goalmouths and center of field with 3/8" solid tines
- Liquid silicone applications on goalmouths and center of field
- Topdress 1/8" 220 sand
- 21-0-0 applied to goalmouths and center on field @ ¼ N/1000ft²

OCTOBER: Fall soccer/ fall/ track

- 14-5-14 with minors applied ½ lb. N/1000ft²
- 500 lbs. Lime applied
- 12-0-12 AS with chelated Fe applied @ 1lb. N/1000ft²
- 12-0-0 with minors liquid applies @ 4 oz./1000ft²
- Aerify goalmouths and center of field with 3/8" solid tines
- Liquid silicone applications on goalmouths and center of field
- 21-0-0 applied to goalmouths and center on field @ ¼ N/1000ft²

NOVEMBER: indoor track

- 14-5-14 with minors applied ½ lb. N/1000ft²
- 500 lbs. Lime applied
- 8% Chelated Calcium applied @ 4oz./1000ft²
- 12-0-12 AS with chelated Fe applied @ 1/2 lb. N/1000ft²
- 12-0-0 with minors liquid applies @ 4 oz./1000ft²
- Aerify field with Aeravator ½" solid tines

DECEMBER: indoor track/ football bowl practice

- 14-5-14 with minors applied ½ lb. N/1000ft²
- 0-0-22 applied ½ lb. K/1000ft² ■

states. Sodding is needed very rarely and only in small square footage amounts (goalmouths, etc.) if done. The amount of turf needed doesn't justify shipping charges from farms producing the GN-1 variety. Due to space limitations at the facility, there is no room for a sod farm to be installed. A small area on the football field that the team doesn't use is set aside for any sod work needed with the GN-1. No aggressive maintenance is done to this area to help with some organic buildup and ease of harvesting with a small sod cutter.

"Another issue that can be a struggle

throughout the year is South Florida's weather patterns. Times during the winter months dry season, it can go for weeks with no rainfall and dry low humid conditions. During the rainy season, it can go for months with daily afternoon rain showers. This can be a struggle due to excessive moisture, wet playing surfaces during activity, and inhibiting the crew from working the field due to lightning threats. Another weather factor during the rainy season is the threat of hurricanes. These storms can cause tremendous amounts of destruction and command a lot of time and efforts to

secure everything and keep events on schedule post storm. Large amounts of salt water can be absorbed by these storms and brought inland with the rainfall. One last struggle is the amount of availability for the crew to work on the field. With two sports sharing the field, football and baseball using the field as an overflow, and conditioning and training of sports without turfgrass to train on, time for our maintenance can be very restrained.

"The field is in use almost every day with athletes competing or training the majority of the day. Extensive communication

with the coaches and trainers is needed to allow everyone to get their jobs done without major conflicts.”

SPORTSTURF: What changes did you make to your maintenance plan for 2011, if any?

DENSON: We didn't make many changes in our program this year. Our nutrition program seems to fit pretty well so we have left that alone. With the GN-1 turf and some iron deficiencies, we have added a few extra applications of just iron to help out our color. We have also added some extra silicone applications to help us out for additional events and wear areas. This year we have had real dry weather in the dry season and real wet when the rainy season came so our insect and weed pressure has been a little higher than normal. We just added a few extra spot treatments to help control this. We have also done a few extra spot applications of sand and aeration in a few areas to help recovery from additional events on the field.

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

DENSON: I really can't isolate one particular piece of turf advice that has been given to me over the years. I have been really fortunate to work for or with some of the best groundskeepers in the country. I don't think they really realize what kind of impact just talking about their challenges has had on my career and how I am able to handle certain situations. I think I have learned more from small comments and stories just standing back listening to how the situations have played out or how they would have dealt with particular issues.

There are so many aspects in grounds management; I think you have to take advice from all aspects and put it together. There are some that have showed me machinery, to budget work, to even getting a field ready when it is under water a hour before the game, to dealing with people from coaches to contractors, and just some that have been a phone call away just to vent or tell a story how they dealt with the same situation a few years back.

I think putting all these little daily pieces of advice together are part of the reason I have been able to learn so much about the grounds industry. I know there are sometimes that you have to speak up, but there

are also a lot of times when just listening is priceless. The knowledge of a grounds manager that has worked his way to the top or has been in the industry for several decades goes a long way in experience and knowledge with dealing with certain situations that can come up. Just being able to rely on a valuable resource like the STMA has helped tremendously through the years. I know I will always have room to grow and learn as a grounds keeper and a manager and I will always try to stay open to taking advice from all aspects of the grounds industry.

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

DENSON: I don't think it is as much me balancing it as the people around me. First, I have a great wife that understands the demands of the University and a part time position at Sun Life Stadium (he works there as an event staff supervisor). It has made some unique situations finishing a project at the University and going straight to the stadium to help the crew all night turn a football field into a baseball field. I know that without her support, it would make everything all together very difficult. She understands that I love the work I do and for her support and understanding, I have to say thank you.

Having a crew to depend on is essential to being able to have some personal time and trusting things will still get done. We try to communicate about events going on with each other so we can rotate and get the personal time everyone needs. We have obligations at work but all of us also have personal obligations we deserve to be able meet. A good staff in the offices and great coaches are real important for that balance too. The staff at the University is very supportive and understanding about how important family is. They support and help us anyway they can and that is essential in finding that balance.

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

DENSON: I would have to say my crew is more important than any piece of equipment we have. I can't say enough about the work the guys do here, especially my foreman Geovani DeArmas. The guys take pride in what they do and I think that is the difference maker. These guys are the

ones working in the heat of the day, through afternoon rain storms, and putting in extra time away from their families to get the fields ready for events, practices, and games. When our equipment goes down, the crew is still making things happen here. I can't say enough about how hard these guys work and the pride they put into their work. You can always find a replacement piece of equipment, but you can't always find a group of guys that care about the quality of work as they do.

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

DENSON: We are trying every year to be involved in more ‘sustainable’ practices. We are trying to improve our recycling practices each year. We are now recycling all rubber, batteries, and used oil and filters from our equipment. We also recycle our cardboard and plastic/metal products. We have also implemented an electric utility cart in the fleet. We are looking to add more electric and fuel friendly equipment as we have to update our fleet. We are also trying to reduce the amount of pesticides we apply not just for the environmental factors, but the cost reduction too.

All our fields are spot treated for insects and weeds as they reach a threshold. Compared to a broadcast, this has reduced the amount spent on these products by thousands of dollars a year and has been a drastic reduction in the amount of chemical put into the environment. We have tried to control any pathogen attack through cultural practices and nutrition management. It has been 7 years since we have had to apply a fungicide on any of our fields.

Other than one aggressive round of cultural practices per year, all other cultural practices have been reduced to spot treatments; trying to only alleviate specific compacted areas, nutrient deficient or wear areas, isolated pest problems, etc. This has reduced labor hours, abuse on equipment and down time on the fields. We also apply a mixture of beneficial bacteria daily. This has helped use nutrient applications and soil management reducing the amount of irrigation and fertilizers needed to maintain a healthy turf. We try to be as environmentally conscious with all aspects of our operation and we are always for better ways to have a sustainable turf program. ■