

or recreation facility uses is likely for grass and vegetation, the rest is often used in restrooms, showers, etc. Facility managers and owners operating on a budget, but still looking for a good return on their investment, can initially install ultra-low flow aerators in all faucets and showerheads. Some older aerators reduce the flow to approximately 2.5 gallons per minute. Newer systems, taking this a giant step further, reduce water use to just 0.5 gallons per minute while still meeting acceptable performance standards.**

While a more costly retrofit, toilets are another big water user. But before installing new toilets, test the current equipment to determine flow rate, referred to as gallons per flush (GPF). If 2 GPF or higher, consider replacing the toilets. If 1.6 GPF, which is the flow rate now required by law in the US, it might be best to wait awhile. Although advanced systems such as dual-flush toilets that use approximately 1.28 GPF are available, water-saving toilet technology changes rapidly.

For instance, air-compressed toilets, also known as “vacuum assist” toilets, similar to those installed on airplanes, are now finding their way into commercial facilities. Some of these systems perform satisfactorily, using just 0.8 gallons per flush, half of what is legally required. Unlike water-reducing toilets that are still evolving, the GPF of urinals has been reduced significantly, even to zero, due to currently available technologies. Some older urinals installed before 1992 may use 2, 3, or more GPF; newer systems, however, use about one GPF or less. This amount can still be significant, especially in sports facilities and what are termed “high density” facilities used by many people. That is why some facilities, even high-end hotels in drier areas of the U.S., are taking this a step further by installing no-water urinal systems. With a no-water urinal, urine drains into a cylinder (or trap) at the urinal’s base, eventually flowing into the drain pipe below similar to a conventional urinal. The cylinder/trap prevents sewer gasses from entering the restroom.

FIRST COMES THE AUDIT

While there are numerous ways sports turf facilities can minimize water consumption, both inside and outside the facility, the first step before implementing any water-reducing strategies is conducting a water audit. This audit can actually be a relatively simple procedure and is often best performed in-house by staff and building engineers. These employees likely know the facility better than anyone and, even more important, the process helps get everyone thinking about water conservation and steps to use water more efficiently and responsibly.

One required step when the audit begins is to collect water bills from typically the past several months, even years. The goal here is to look for trends. Has water use increased over the years? If so, try to find out why. Are there water spikes, where suddenly more water is being used for several months? Again, find out why. Water spikes, especially in a facility that has large amounts of vegetation such as a sports turf location, can be the result of burst pipes or significant leakages.

From here, the key audit steps are to locate where water is used, how much water is being used, and where it can be reduced or used more efficiently. Often, an architectural map that provides plumb-

ing information can be helpful. Once areas are located where water consumption can be reduced, facility managers and owners are sometimes undecided whether to replace or retrofit all water-using fixtures or take smaller, more marginal, and less expensive steps. Either direction is fine as long as ideas are carried out. Over time, the costs involved will likely be offset by savings, helping to reduce future operating costs.

Sustainable-minded facility owners and managers, regardless of the building type, must continually monitor water usage and leaks. In addition to helping earn LEED certification, reducing water consumption is like putting money in the bank and not down the drain. ■

Klaus Reichardt is founder and CEO of Waterless Co. Inc, Vista, CA. He may be reached at Klaus@waterless.com

* It is estimated that water use for restrooms in commercial office buildings as well as many other types of facilities accounts for roughly half of the total amount of water used in the entire property.

** Faucets installed before 1992 used as much as 5 gallons of water per minute. Not only was this a huge amount, but it also had a very significant impact on hot water demand and related costs.



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Red Bull Arena



BMO Field

Turf report from the new Major League Soccer stadiums

TODAY'S NEWEST SOCCER-SPECIFIC PROFESSIONAL stadiums can create new challenges in turf management. We asked a few Major League Soccer stadium managers how it's going.

DAN SHEMESH,
Red Bull Arena, Harrison, NJ

SportsTurf: What type of turfgrass are you managing?

Shemesh: Our field at Red Bull Arena is Kentucky Bluegrass overseeded with perennial ryegrass.

ST: What tips do you have for keeping a good stand of grass despite all the traffic these new stadiums see with all the corporate and special events?

Shemesh: Tips for keeping a good stand of turf despite traffic with extra events: We like to aerate and deepcore as often as the schedule allows us to. We also overseed when the events are close together and do not anticipate enough recovery time. In the cooler months we use growth covers to accelerate the seed germination. Careful planning of extra non-sporting events with built-in rain dates and restrictions on what can be done on field helps minimize damage.

ST: What's been your biggest challenge this season and how did you respond?

Shemesh: Our biggest challenge this season will be the last two weeks of July where we host six games along with six training sessions. Hopefully the weather cooperates and by the time I am reading this issue of STMA the field is still in good shape.

ROBERT HEGGIE,
BMO Field & KIA Training
Grounds, Toronto

SportsTurf: What type of turfgrass are you managing?

Heggie: BMO Field was converted from artificial to Kentucky Bluegrass 2.5 years ago. I overseed with a blend of 15% Kentucky Bluegrass and 85% Perennial Ryegrass, but a few times a year I will overseed 100% Kentucky Bluegrass.

ST: What tips do you have for keeping a good stand of grass despite all the traffic these new stadiums see with all the corporate and special events?

Heggie: Obviously the key to keeping a good stand of grass is a multifaceted answer. First of all, rotation of play is vital, keeping in contact with the coaches and ensuring they are rotating around the field and not using the same areas over and over. Limiting field usage (no 18-yard box) during smaller events can at least ensure that the 18-yard boxes are in prime condition for games. If you have enough room, moving the pitch a few yards to the left or right. This changes the wear pattern since most of MLS soccer plays down the middle of the field, it also moves where the goalkeeper is standing.

Fertility is key! I personally in 2.5 years have never had to use any sort of pesticide. I am sure that it is due to the proper fertility in my plants, as well as controlling the environment as much as I can. BMO Field has a SubAir system and a hydronic heat system, so some environmental control is possible. A combination a granular, liquid and foliar fertilizers are the best route for a healthy stand of grass.

I am also a big believer in the use of silicon products, they help make the plant more turgid and resilient against wear. No one can look at a plant and know exactly what it needs. Soil and tissue test are vital to ensure that you are following the proper fertility program, there is no one program that everyone can follow, and your program should forever be changing. Try not to nitrogen load, the plant will take up as much

nitrogen as you want to let it, but it doesn't mean that it needs it. I compare nitrogen with plants like a fat kid with sugar. They'll eat and eat and eat, to the point of being full, leaving no room for essential minerals and nutrients to be consumed.

Another key component is proper grass selection when overseeding. The blend I use is 15% KBG and 85% PRG. But it's the species selection that is so important. For Kentucky Bluegrass I use "Jumpstart" a newer variety of blue that has a drastically shorter germination time. Personally I see in germinating in 5 days, far superior to the traditional blues.

For my Perennial Ryegrass selection I use Regenerative Perennial Ryegrass, again a new variety. The benefit to this is that it doesn't have the traditional growth habit of rye, its growth characteristics are actually closer to bluegrasses (stolens). Clearly a plant that grows by stolens is superior since when divots are taken there is a greater chance of advantageous nodes still being present.

Proper watering! The drier you can have the pitch, the less damage it is going to take and the less compaction the soil is going to face as well.

Make sure to aerate as much as possible. It can be very difficult to aerate due to the busy schedules and overuse, but when there is time, make sure you get out there! It's so key to promote gas exchange and proper water and fertility movement. Aeration is a one step backwards, two steps forwards procedure. Low oxygen levels and high moisture levels are a key for many pests and disease, so ensure that aeration is done as much as possible.

ST: What's been your biggest challenge this season and how did you respond?

Heggie: Biggest challenge in Toronto this year was a lack of rainfall and incredible high heat. We saw many days over 100 degrees, and it has only rained here around 5 times since May (as late August). Keeping Bluegrass and Ryegrass alive and aggressive in the heat is not an easy task. Light syringings on hot days is obviously a key to fighting this problem. [I benefit from] using the SubAir system and pressure at night, pushing cooler night time air into the soil profile and reducing its temperature. Furthermore, my irrigation water is high in bicarbonates, this creates a problem in the soil over time, tying up nutrients. So I have had to use a lot more organic acid this year than I have in the past, but this helps acidify the soil leaving nutrients available. If I know the rain is coming then I don't bother with the acid, since the pH of the rain does the same job in my opinion and it's an application I can use later. ■

JOHN MASCARO'S PHOTO QUIZ

Answers from page 17

THE PLASTIC MESH is a result of several compounding problems. When this football field was constructed a few years ago, new soil was brought in and then large roll 419 Bermudagrass was installed. An inexperienced contractor laid the sod without removing the plastic netting that was backing the sod to keep it together during transit. The plastic netting is sometimes left on the back of sod when it is installed on hills or sloped areas but should **never** be left on the back of sod when the sod is laid on a sports field.

This field was then subjected to several years of minimal maintenance and fell into a state of disrepair with volunteer bahiagrass taking over almost 50% of the playing surface. As high school students practiced and played football on the under-fertilized turf, the bermudagrass began to wear away and the football cleats dug down to the underlying net, pulling it up to the surface and causing two different players to twist their ankles over 1 month. The net began appearing in so many wear areas that parents were out on the field with scissors trimming the net off. I suggested they pad lock the gate closed and rebuild the field immediately to prevent any further injury.

Photo submitted anonymously



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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Latest mower technology from Big Three



Toro Greensmaster Flex series walk greensmowers

The Toro new Greensmaster Flex Series of walk greensmowers delivers cutting performance and innovations that improve playability, enhance productivity, and simplify service. The patented Flex suspension ensures a full range of motion so DPA cutting units can master undulations. Multiple easy-to-configure clip settings allow users to customize frequency of clip to achieve any desired turf condition. Combine these features with an efficient collection system to capture all clippings and the result is improved turf health, after cut appearance and playability.

Ease of use and reliability are hallmarks of Toro greensmowers. The new Flex and eFlex mowers feature a simple and dependable single belt drive transmission that simultaneously transfers power to both the reel and traction drum for a consistent cut on every pass on every green for every operator.

Extremely quiet and emission-free, the all-electric eFlex also includes an automated EZ-Turn feature for improved operator control and comfort. This feature automatically slows the mower down at the end of a mowing pass and speeds it up again on the return pass without sacrificing quality of cut, resulting in better control and reduced turf damage.

The lithium-ion battery technology in the innovative eFlex takes electrical efficiency to a new level, allowing operators to mow approximately 45,000 square feet on a single charge. A convenient LCD display provides an ongoing battery charge status and also displays useful information such as machine hours and battery health.

Also, the Toro eFlex mowers carry the EnergySmart label, a sign of Toro's commitment to balancing environmental responsibility with economic value. Toro Flex and eFlex walk greensmowers deliver a lower cost of ownership and a higher level of quality, innovation and turf expertise.

Jacobsen's new TrueSet cutting unit

First designed by Oscar Jacobsen in 1921, the Jacobsen cutting unit has changed little over 90 years. The unit's superior geometry,

design and construction has stood the test of time and created a legacy of unparalleled quality-of-cut.

Today, Jacobsen continues its storied history of quality and performance with the TrueSet cutting unit, the latest innovation from Jacobsen. The company has made the industry's best cutting unit even better by making it faster and easier to adjust with industry-leading holding power.

It's no surprise that professional sports teams including the Dallas Cowboys, Houston Texans, Los Angeles Angels of Anaheim, and Texas Rangers all depend on Jacobsen to help provide superior field conditions.

"Sports field managers are under more pressure than ever to get more done in less time," said Chris Fox, product manager for Jacobsen. "The idea behind the TrueSet cutting unit is to give them more time to work on other equipment and projects."

"We were very careful not to tinker with any of the geometry, design or construction that made Jacobsen the leader in quality-of-cut for over 90 years," said David Withers, president of Jacobsen. "TrueSet provides the same legendary quality-of-cut sports field managers have come to expect from Jacobsen while also giving them extra time."

The bulk of the time savings provided by Jacobsen's TrueSet cutting unit comes from an innovative bedknife-to-reel adjustment. Turf managers fine tune the TrueSet bedknife-to-reel adjustment at two points with a gear that moves the bedbar one thousandth of an inch with an audible click.

Further adding to TrueSet's ease-of-use, the adjustment is made from the top and front of the cutting unit with a ½-inch wrench, the same tool used for height-of-cut adjustment. This makes the new cutting unit much easier to reach and reduces the number of tools needed to make adjustments.

The company was also sure to maintain its industry-leading holding power, which equates to 425-lbs. of force holding the bedknife in place.

The TrueSet cutting unit will begin shipping on the following 5-inch reel products this winter: ECLIPSE 2 walk mower (floating head), Greens King IV, GP 400 and ECLIPSE 322 triplex mowers, and the LF 550 and SLF-1880 5-gang reel mowers.

Turf managers fine tune the TrueSet bedknife-to-reel adjustment at two points with a gear that moves the bedbar one thousandth of an inch with an audible click.

John Deere 7500 E-Cut mower

The 7500 E-Cut Hybrid Fairway Mower is designed with fewer possible hydraulic leak points to protect fairway appearance. Electric reels, which can result in reduced fuel usage and sound levels, are the hallmark of this hybrid mower. The 7500 E-Cut offers the power and traction of the PrecisionCut line and features a 3-cylinder direct inject diesel engine. A double-acting steering cylinder equalizes

right and left pressure, like a riding greens mower, making it easier for operators to hold a straight line and achieve superior striping.

For increased hill-climbing ability, the John Deere exclusive GRIP All-Wheel Drive Traction System can be added. This mower also features the exclusive rear-attaching point for the cutting unit yoke, which places force on the rear roller for a more consistent cut height. The 7500 E-Cut comes equipped with John Deere's revolutionary Quick Adjust 5 (QA5) cutting units, allowing customers to make adjustments quickly and easily. A servo-

controlled hydrostatic drive system provides increased flow to the traction system for more power and better traction in either two-wheel or all-wheel drive.

To make the job easier and more comfortable, the 7500 E-Cut features an LED instrument cluster and Sit-on-Seat diagnostics, as well as John Deere's White Box™ Controller for easy troubleshooting. Operators benefit from substantial leg room, a wider platform for optimum pedal spacing and a highly adjustable suspension seat. ■

All-in-one full-field drain and shock pad

The same, reliable drain properties that make Enkadrain preferred for all types of athletic fields, landscaping and building drainage is now engineered for synthetic turf playing fields with a specially formulated polymer core providing significant energy restitution and shock absorption (Gmax). This drainage composite consists of a polypropylene drainage core of fused, entangled filaments and a geocomposite fabric bonded to each side. The entangled filaments are molded into a pyramid pattern that maintains the flexible design of other Enkadrain products. The second fabric eliminates the need for a filter fabric and stops penetration and migration of soil fines.

The enhanced polypropylene formula has excellent resistance to organic solvents, degreasing agents, acids, and alkalines. It has tensile strength superior to high density polyethylene. It has a low moisture absorption rate, is very light weight and exhibits excellent elastomeric properties over a very wide temperature range.

The drain/shock pad combination rolls out quickly and easily, covering the entire field under the turf layer. The meter wide rolls have a 3" fabric overlap on both sides.

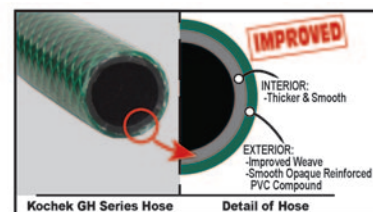
Colbond, Inc.

Kochek GH Green irrigation hose

Kochek re-introduces its GH Series Irrigation Hose. This hose has been improved to increase the working pressure to 150 PSI to handle the pressures of sports turf and golf course irrigation systems. This durable hose's exterior cover is a smooth opaque green PVC compound reinforced with high tensile strength yarn. The inner tube is a smooth black PVC and is available in 3/4" and 1" diameters in 50', 75' and 100' as well as in bulk quantities.

Additional features of this hose are: High working and burst pressures to work well with golf irrigation system pressures; abrasion resistant smooth cover; superior weather, ozone and ultraviolet resistance, lightweight.

Kochek



Cub Cadet commercial zero-turn riders

During a 4-week road tour, Cub Cadet unveiled to its 1,500 dealers its new, next generation of advanced commercial zero turn riders. Dealers had a chance to see and test drive the new Tank SZ Commercial and Tank LZ Commercial zero-turn riders. The Tank SZ (which denotes Steering wheel Zero turn) delivers incredible maneuverability, turf protection and remarkable traction even on steep inclines due to Cub Cadet's exclusive 4-wheel steering technology (patented as Synchro Steer Technology). The Tank LZ (which denotes Lap-bar Zero turn) features an intelligent and responsive lap bar system that allows for a full range of adjustability and rider egress regardless of position.

Cub Cadet Commercial



Kubota ZG332 zero-turn mower

Kubota continues to expand its line of zero-turn mowers to offer both full-size and compact models available with Kubota gasoline and diesel engines, providing a zero-turn option fit for jobs of any size. The full-size Z300-Series comprises 6 powerful models, including the new ZG332. Boasting a new 32.5-horsepower liquid-cooled Kubota gasoline engine, hydrostatic transmission and Pro Commercial mower decks in both 60- and 72-inch options, the ZG332 emerges as Kubota's most powerful gasoline zero-turn model yet. Kubota's 3 compact Z200-Series models each provide lower centers-of-gravity resulting in light maneuverability and superior navigation. The compact Z200-Series also offers both gas- and diesel-powered engines.

Kubota



Toro Reelmaster 5210

The Toro Reelmaster 5210 features Dual Precision Adjustment cutting units to deliver an exceptional quality of cut and aftercut appearance. Powered by a 28 hp, 3 cylinder Kubota diesel engine, this unit offers a nimble and maneuverable design for mowing in a wide range of conditions. The Reelmaster 5210 is lightweight and productive with a 100-inch width of cut. It is available in standard 2 wheel drive or add on the CrossTrax all-wheel drive system.

The Toro Company





Tri-King reel mower

A favorite mower of sports field managers, the Jacobsen Tri-King provides excellent sports conditions thanks to its reel-quality cut on taller grasses. Reliability and robust performance comes from an on-demand 3WD parallel traction system, power steering and a 17.7 HP diesel engine. The Jacobsen Tri-King also provides a very light footprint and superior turning capabilities, making it much easier on your turf and your operators. If you're looking for a dependable mower that can provide professional sports turf conditions, look no further than the Jacobsen Tri-King.

Jacobsen



Honda commercial mowers

The Honda HRC Commercial Series offers two models: the self-propelled, hydrostatic drive HRC216K3HXA and push-type HRC216K3PDA. The performance of the HRC Series is enhanced by offering Honda's exclusive MicroCut twin-blade mulching technology. In addition, the push model HRC216K3PDA features Honda's GSV160 overhead cam (OHC) engine, while the self-propelled HRC216K3HXA utilizes Honda's legendary GXV160 engine. Both engines feature all-aluminum construction and a cast-iron cylinder sleeve. Dome-shaped deck design that facilitates both bagging and mulching while delivering finer clipping particles; offset twin blade MicroCut System (the only 2-blade 21-inch commercial lawnmower); hydrostatic Cruise Control Shaft Drive transmission for increased durability (1.8-4.0 mph); (HXA model only).

Honda



Gravely introduces Diesel Pro-Turn 400 XDZ Series mower

Gravely announces the expansion of the Pro-Turn 400 series commercial lineup with the introduction of a new diesel zero-turn mower. The diesel mower features a 25hp Kubota engine to deliver superior performance and efficiency and is available in a 60- and 72-inch deck. Also featured is Gravely's industry-leading air-suspension seat for maximum operator comfort. Launching the diesel Pro-Turn 400 allows Gravely to meet the needs of landscape professionals looking for a high-performing alternative to gasoline mowers and demonstrates a commitment to continued upgrades for the Pro-Turn 400 Series lineup. "Diesel engines are known for their long lifespan and fuel efficiency," explained Brian Anundsen, commercial product marketing manager for Ariens Company.

Gravely Turf



Wright's Stander X

Stand-on mower pioneer Wright Commercial Products' Stander X mower combines the feature-filled Stander with an easy to use deck-lift system and new AERO CORE deck design.

The height of the Stander X's large 48", 52" or 61" decks can now be adjusted on the fly with Wright's new generation height adjustable deck. The Stander X's 9.5 MPH cut speed increases productivity without sacrificing comfort. A suspension platform provides a smoother ride, and a full length thigh-to-knee pad increases operator comfort. With a low center of gravity and large wheels, the Stander X has unmatched hillside stability. The Stander's open, unconfined design allows the operator to quickly step off in case of an emergency or to pick up debris.

Wright Manufacturing



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Grasshopper



BigDog X Diablo

The X Diablo is for the commercial cutter who wants the biggest, toughest, fastest BigDog on the market. Just one look at this machine and you will see the difference, starting with the larger, heavy-duty frame and dependable Kawasaki FX engine that powers the mower to 14 mph. Hot oil shuttle for maximum transmission performance, Hydro-Gear PY series 21cc pumps for industrial strength performance, super deluxe seat.

BigDog



BOB-CAT ProCat SE

The BOB-CAT ProCat line of premium mid-sized commercial riding mowers boasts 2 new commercial models with key features in a package that offers high performance and value. The BOB-CAT ProCat SE features an open-frame design for enhanced visibility, a low seat platform for an enhanced center of gravity, an extreme discharge system with DuraDeck and expanded discharge chute for a quality cut and better clipping dispersal without clumping, and new motion control design that eliminates lost linkage motion for smooth and responsive operation. The ProCat SE maximizes productivity with the choice of a 52- or 61-inch deck, hard-working and clean-running Kohler Command Pro engines with canister-style air filters, and an EPA-compliant fuel system with 14-gallon fuel capacity that offers ground speeds up to 11.5 mph and fewer refueling stops to keep users moving forward.

BOB-CAT

Country Clipper Boss

The Country Clipper Boss offers all the features Country Clipper is known for, including the patented stand-up deck that positions the deck vertically for easy maintenance and under-deck access. Don't miss the Power Lift, available on select Boss models, to adjust cutting height or stand up your deck with the push of a button. The Boss is available with Country Clipper's easy-to-use, point-and-go joystick steering, leaving one hand free to move low-hanging limbs or enjoy your favorite beverage. The Boss is powered by Kohler and Kawasaki engines ranging from 25.5 to 37 hp. with 60- or 72-inch cutting widths. Built with cast-iron spindles and a heavy-duty welded steel deck with front "bull-nose" reinforcement, the Boss is virtually indestructible.

Country Clipper

Husqvarna P-ZT

The Husqvarna P-ZT series offers commercial quality at an unbeatable value. Born and bred from the top of the line, the P-ZT does not hold back on durability, reliability and performance. This new workhorse borrows key attributes from the PZ such as the commercial-duty chassis; heavy-duty front casters; convenient and comfortable operator interface and a clean, open design for unparalleled service access. All these features combine to offer one high-value, solid commercial performance package.

Husqvarna

Hustler Super Z

The next generation Super Z raises the bar by using industrial quality components on this line of mowers. The new Industrial Super Z also features Hustler's new VX4 deck. VX4 deck technology boasts Velocity, Volume, Vacuum and Versatility. Velocity: The progressively larger tunnel in front of the blades, along with a wider discharge opening, moved grass through the deck faster, resulting in greater discharge dispersion. Volume: Higher air and grass volume throughput results in less material carried in the cutting chambers, allowing higher ground speed without compromising cut quality. Vacuum: Superior cut quality due to grass being better lifted during cutting, resulting in a crisp clean cut and appearance every time. Versatility: Adjustable front inner wall allows deck performance to be optimized for all grass conditions and seasons.

Hustler



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Field of the Year



>> Jerad Minnick painting a logo on SoccerPlex Stadium.

SoccerPlex Stadium, Maryland SoccerPlex, Boyds, MD

- ⊙ **Level of Submission:** Schools/Parks
- ⊙ **Category of Submission:** Soccer
- ⊙ **Head Sports Turf Manager:** Jerad Minnick
- ⊙ **Title:** Sports Field Manager
- ⊙ **Education:** Bachelor's degree in plant science/turfgrass management
- ⊙ **Work History:** I have been the Sports Turf Manager for the 22-field, 162-acre Maryland SoccerPlex since February of 2009. Previously I served as the Director of Sports Field Operations for the Kansas City Wizards and as Manager of Grounds for the Kansas City Royals.
- ⊙ **Full-time staff:** Nick Lievense (Manager), Ryan Bjorn (Assistant Manager), William Godoy (Foreman), and Joel Cruz.
- ⊙ **Other crew to recognize:** Juan Santilana, Jorge Mejia, Cristhian Mejia, and Dwight Townsend-Gray (intern).
- ⊙ **Original construction:** 2000
- ⊙ **Turfgrass variety:** 80% Kentucky bluegrass/20% poa annua
- ⊙ **Rootzone composition:** Sand mix, 85% sand, 15% organic/peat
- ⊙ **Overseeding:** Overseed with Kentucky bluegrass @ 2 lbs/ 1000 in the spring and the fall.
- ⊙ **Soil stabilizer:** TurfGrids
- ⊙ **Drainage:** Herring-bone drainage system in pea gravel under 10 inches of sand.

Biostimulant products and fertilizer make up a 68% of the materials budget. Proper biostimulant and fertilizer management is important for a strong, healthy plant. A strong, healthy plant that is durable can take heavy traffic and reduces the need for additional seed and sod. Also, the healthy plant can fight off disease with its own immune responses. That allows us to reduce our fungicide needs and costs. Additionally, healthy plants also require less water because of deep roots and less mowing because it is not growing excessively. Topdressing sand makes up an additional 28% of the materials. The use of sand is important as it protects the crown of the plant from heavy traffic.

CHALLENGES

2011 was a year of variety and change for SoccerPlex Stadium. Maryland SoccerPlex champions itself on the ability to host a large number of events while providing high quality fields. In 2011, the number of events continued to increase exponentially.

The Freedom, Washington's Women's Professional Soccer team that called SoccerPlex home, moved operations to South Florida in 2011. Crystal Palace, a USL-1 team that played games at SoccerPlex, stopped operations entirely. Some facilities take such losses as a negative, but SoccerPlex was able to capitalize on the loss and add more events than before.

SoccerPlex still hosted a number of high-level soccer in 2011. DC United played two matches, both against other MLS teams. SoccerPlex added the ACC-Big East Challenge, an annual event that is a "tune up" to host the 2012 and 2013 ACC Conference Tournaments. Several other colleges were also able to add matches to SoccerPlex. Following Hurricane Irene and a Tropical Depression that brought over 13 inches of rain to DC in 4 days, the University of Maryland moved a rainy day match to SoccerPlex. The field at Maryland was unplayable, but SoccerPlex Stadium was ready for play.

The addition of youth matches and clinics is where SoccerPlex was able to increase its event number the most. These additional events also added the biggest challenge in to maintaining the stadium at a professional level. Youth clinics are held 2-3 hours daily on the field. Youth tournaments at the 22-field Maryland SoccerPlex were allowed to increase from 5 games per day on the Stadium to 8-10. SoccerPlex's signature tournament, Discovery Cup, hosted 24 games in 2.5 days.

Being sand based, the stadium not only benefited the University of Maryland during the fall where the area has received over 20 inches of rain. It also allowed SoccerPlex to move 84 small-sided and 30 full-sided youth matches onto the Stadium to reduce the number of rainouts from the remaining 18 native soil fields.

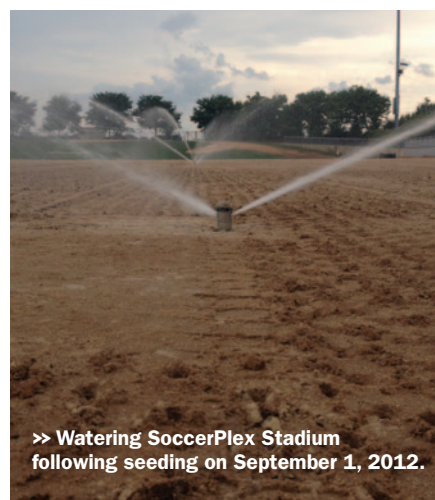
The large number of events, different type of events (youth clinics/ small-sided soccer/ full sided soccer/ professional soccer/ lacrosse, etc), and the challenge of the extremely wet fall certainly make SoccerPlex a unique field with unique challenges. Even with increased events we maintained a professional quality field in 2011.

SportsTurf: What are your specific job responsibilities?

Minnick: My job responsibilities



» Jerad Minnick mowing SoccerPlex Stadium.



» Watering SoccerPlex Stadium following seeding on September 1, 2012.

cover a wide spectrum of challenges. The “basic” piece of my position at Maryland SoccerPlex is to direct grounds maintenance and environmental management for the 22-field, 160-acre soccer park that hosts over 6,500 events per year. I also oversee many of the outdoor facility and infrastructure maintenance pieces as well. Additionally, I am responsible for the implementation of a 5-year/\$5 million field development and improvement plan that was created to meet the needs of our patrons and increase capacity and revenues.

While I am in charge of many different things, that is only possible because of the hard-working and dedicated team of people that work in supporting those tasks. All that I oversee is maintained by a core group of eight people. Ryan Bjorn is the day-to-day Grounds and Environmental Manager. Working with Ryan are two assistant managers, Julie Adamski and Dusty LeVan. Our working crew foreman is William Godoy, and our senior equipment operator is Joel Cruz. Christian Mejia and Caesar Chavez work as daily support staff members that lead other seasonal and part-time staff members that we rotate through on an as-needed basis.

I am indebted to this team for the success that we are able to achieve each and every day. I am also grateful for hard work and dedication of past managers that helped build the foundation for SoccerPlex field quality and set the stage for the FOY Award. Nick Lievense, now responsible for baseball and soccer at University of Purdue, was part of last year for the award. John Torres (head groundsman at PPL Park in Philadelphia) and Matt Carroll (now a manager with John Deere Landscapes) also were essential pieces for our team to win the FOY award.

SportsTurf: What do find most enjoyable about your job?

Minnick: My favorite part of my job is being able to create new methods, approaches, and ideas to maintain high traffic grass fields to a professional level. The idea that grass fields will not take heavy traffic to me is just a misconception. Every day we try new things to be able to push grass fields further and further in a transition zone climate that saw 66 days over 90 degrees 2 years ago and the coldest and wettest September and October ever last fall. And every day we find a way to succeed with better quality fields, even under increasing traffic demands. There is no doubt that my favorite part of what I do is creating the methods to change that misconception about grass fields.

SportsTurf: What task is your least favorite and why?

Minnick: With that, there is not a part of my job that I dislike. I work hard to always think positively and in a pro-active manner. So with that, I do not think about things that I do not like.

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

Minnick: Turf management started for me as a young boy mowing yards around our family farm. That venture progressed into a golf course maintenance job in high school and into my career choice in college.

My start in sports turf management came completely by chance as a sophomore golf course turf management student at the University of Missouri-Columbia. During an office visit with my professor Dr. Erik Ervin (then at Missouri), Trevor Vance of the Kansas City

Royals called Dr. Ervin to talk about the opportunity his grounds crew had for interns. As a childhood Royals fan, I jumped at the chance and I have worked in sports turf ever since.

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

Minnick: In order to meet growing demand and continue to provide a high quality field surface under high traffic, SoccerPlex Stadium underwent an entire renovation the last week of August 2012, even after winning this award.

The field required the renovation because of a heavy *poa annua* infestation and a thick organic layer that had built up from an original sod layer over 12 years.

With the renovation, the field now will require less pesticide and water to maintain the *poa annua*. Additionally, the field will be able to increase on its more than 700 hours of events in 2011 with the removal of the organic layer that compacted quickly from traffic.

The renovation took place over a 5-day span during the last week of August following the ACC-Big East Challenge with European influence and support. The organic layer was removed, sand was added back to allow laser grading of the surface, the stability fiber “turf grids” were mixed in with the new sand, and the field was re-seeded with Kentucky bluegrass on September 1. It will re-open October 6, 2012 for Discovery Cup, then will play host to several DC and Maryland area fall soccer champions before hosting the ACC Men’s Championships on November 9 and 11.

Seeding, instead of sod, was chosen for 3 factors: 1) elimination of the sod-to-sand interface layer; 2) to reduce cost; and 3) reduce the environmental impact of trucking. Timing, 5 weeks, and time of the year, September, made seeding an easy decision for the field to re-open on Oct. 6, 2012.

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

Minnick: The role of the Sports Turf Manager is currently in a state of positive evolution. Sports facilities are in need of additional revenue and field users are in need of higher quality playing surfaces. Sports Turf Managers are being called on to meet the demands of increased traffic with higher quality fields on a smaller budget.

These factors provide Sports Turf Managers the opportunity to reach an entirely new level of professionalism. This is the point in time that the industry gets to move past the stereotype of being just “the person that mows the grass.” This is the time that Sports Turf Managers illustrate their wide range of skills: As a soil scientist, a plant physiologist, and a chemist working with grass and fertilizers. As a personnel manager, a team builder, and a teacher working with their staffs. As a uniting leader, a communicator, and a member of the team on the field empowering coaches, athletes, and administrators.

With the demands and needs of grass fields increase every day and with new technologies, forward thinking, and creative ideas, we as Sports Turf Managers have the opportunity to increase our value and illustrate how we are extraordinary. Positive thinking and a can-do attitude will set a new level of professionalism that will equate into increased respect and appreciation from players from recreation level to professional, from executives, and from fans. What a great time to be in our industry! ■