On Opening Night a large group of thunderstorms began to develop to the west of the ballpark and move our way. It had not rained in several days so obviously Opening Night was selected by Mother Nature. The storms shortened batting practice and the pregame show, but we were able to get the game started only a few minutes late. When rain threatened we had to cover two areas, the wicket and the infield. The wicket is constructed of materials very similar to the pitcher's mound. It's a heavy clay product with just enough organics to grow natural grass. The wicket cover was 100 x 100 feet and ours was 170 x 170. Because they overlapped at second base when they were rolled out, orchestrating the tarp pull was a bit of fun. What we knew is that if the wicket was left uncovered during a moderate storm we would be in danger of canceling the game because we could not amend the soil to dry it out with any conditioners or it would ruin the wicket clays that had been played on for 150 years.

ST: What other groundskeepers were instrumental in the Australian experience?

Cook: Our Sydney Sportsturf team was created several months ago but had to change due to a last minute added an event in Panama. The Yankees played two games against the Marlins at Rod Carew Stadium and that caused us reach out and find a few more guys since the two events were happening almost at the same time. In Sydney we brought over Chad Olsen and Eric Ogden from our Brickman Sportsturf team and added Darrell Lemmer and Chad Kropff, both of whom have helped us on many other international events. In Panama we sent Brad Detmore from our team and added Joe Skrabek and Dennis Klein.

ST: What did you learn from the Australian experience that you can take to your next project?

Cook: With any major project we always learn so much and see so many different ways to perform tasks. This event was so special because it was the first time MLB had played a game in the country, the first season opener in the Southern Hemisphere, and the first MLB field to be constructed on a cricket pitch. By far, the best part of the project was working with the Australians. Everyone had the "glass half full" attitude even during times that were a bit worrisome for us Americans. We set the bar pretty high and in many cases due to our team efforts exceeded the expectations of the ballclubs and fans. I have met Team Australia's coaching staff on numerous occasions. They were so excited to finally see a field constructed in the country of this caliber. Before the event we had a couple exhibition games with the Australian National team. During their team batting practice they allowed some of their family members to take BP and catch balls on the outfield. Australia Team Manager Jon Deeble

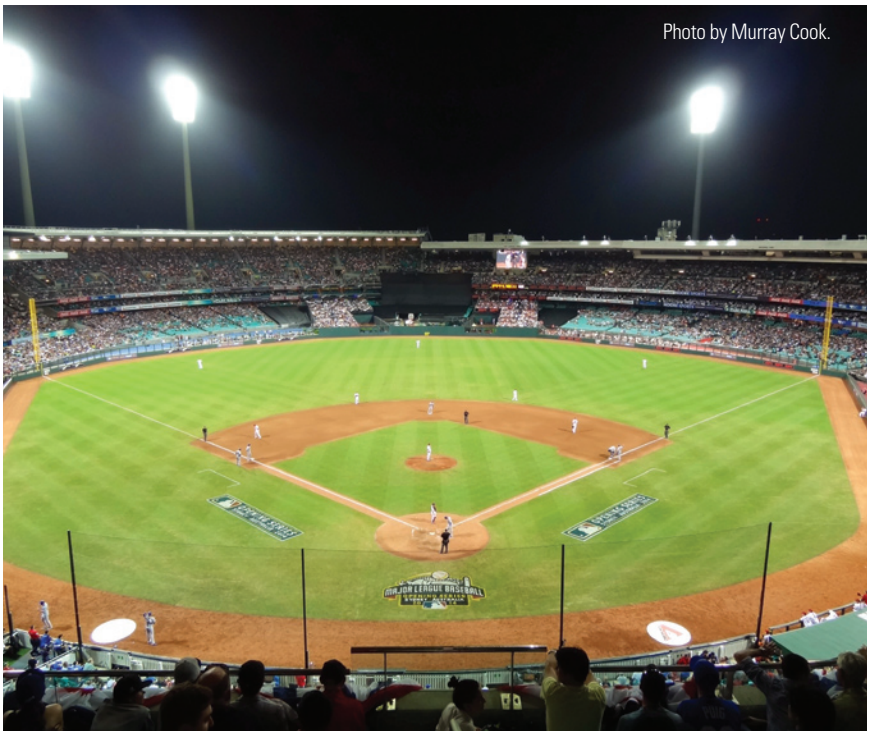


Photo by Murray Cook.

said, 'This may be the only time some of these players and their families may ever play or see a field this nice in our country so we are having an Aussie baseball family BP. '

ST: What is your next project?

Cook: Well there are several potential events in the works but I really can't share that info however we know that MLB international and the Commissioner's office are devoted to growing the game worldwide. Next year we will start the World Baseball Classic qualifier venue evaluations. The Toronto Pan American games will take place next year and this is playing on a couple new fields. This year we will have a series in Canada and Dominican Republic. We do several sets of field maintenance clinics each year. My heart has always been to give back and I truly enjoy sharing what I have learned and more importantly learning from others at these clinics. It's an exciting time for baseball with a great potential to get back in the 2020 Olympics in Japan. ■

John Mascaro's Photo Quiz

Answers from page 15

John Mascaro is President of Turf-Tec International

These brown areas are actually sled damage, but not from being left for days on one area. It actually occurred over a fairly short period of time. The brown turf in this photo is a result of direct high temperature injury. This irrigated bermudagrass practice football field located in Texas had been subjected to 30+ days lack of rainfall when this occurred. As many of you may have training staff that are not necessarily very good about moving equipment around, this particular day was no exception. The training staff left this black football practice sled on the same area of the turf during 100+ degree hot August day and the turf underneath it suffered from the heat as shown in the picture. As you can also see in the background, the training staff did not learn from their mistake the previous day.

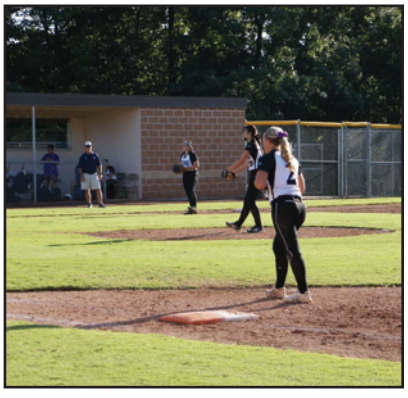
Photo submitted by Lanse Fullinwider, MCPTM, Grounds Manager, University of North Texas, Denton, TX.

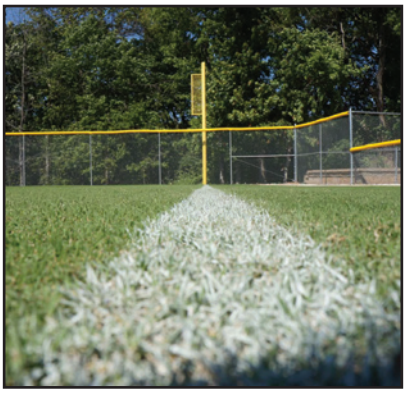
If you would like to submit a photograph for John Mascaro's Photo Quiz please send it to John Mascaro, 1471 Capital Circle NW, Ste # 13, Tallahassee, FL 32303 call (850) 580-4026 or email to john@turf-tec.com. If your photograph is selected, you will receive full credit. All photos submitted will become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

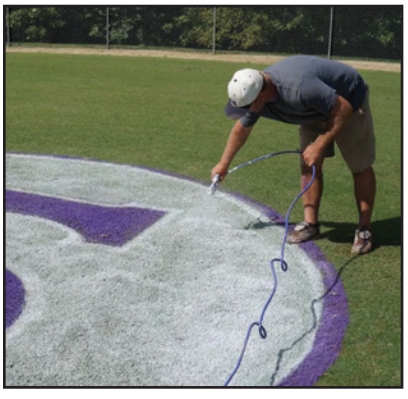
Background illustration courtesy of istockphoto.com

PARK HILL SOUTH LADY PANTHERS SOFTBALL FIELD,

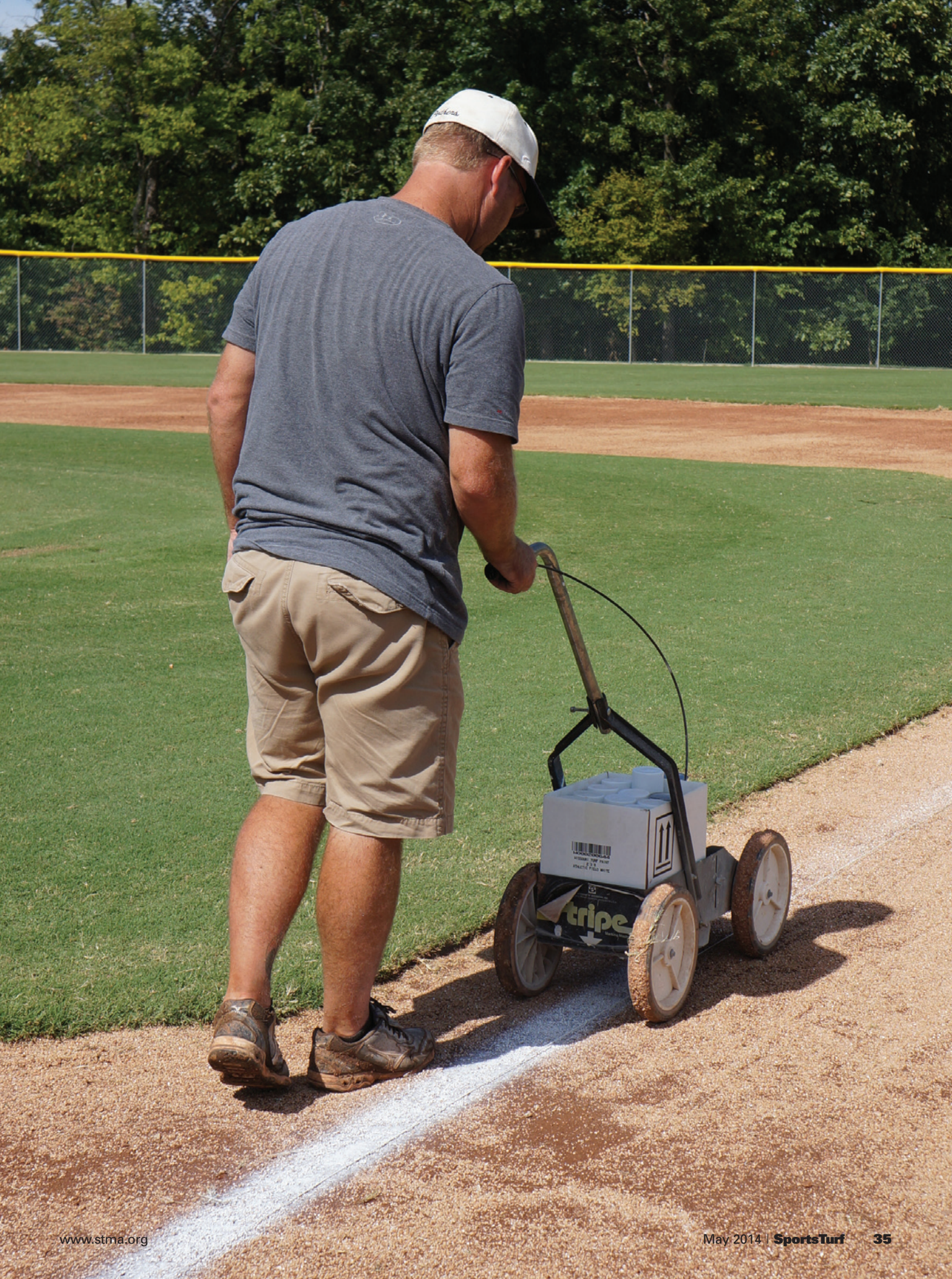
Riverside, MO

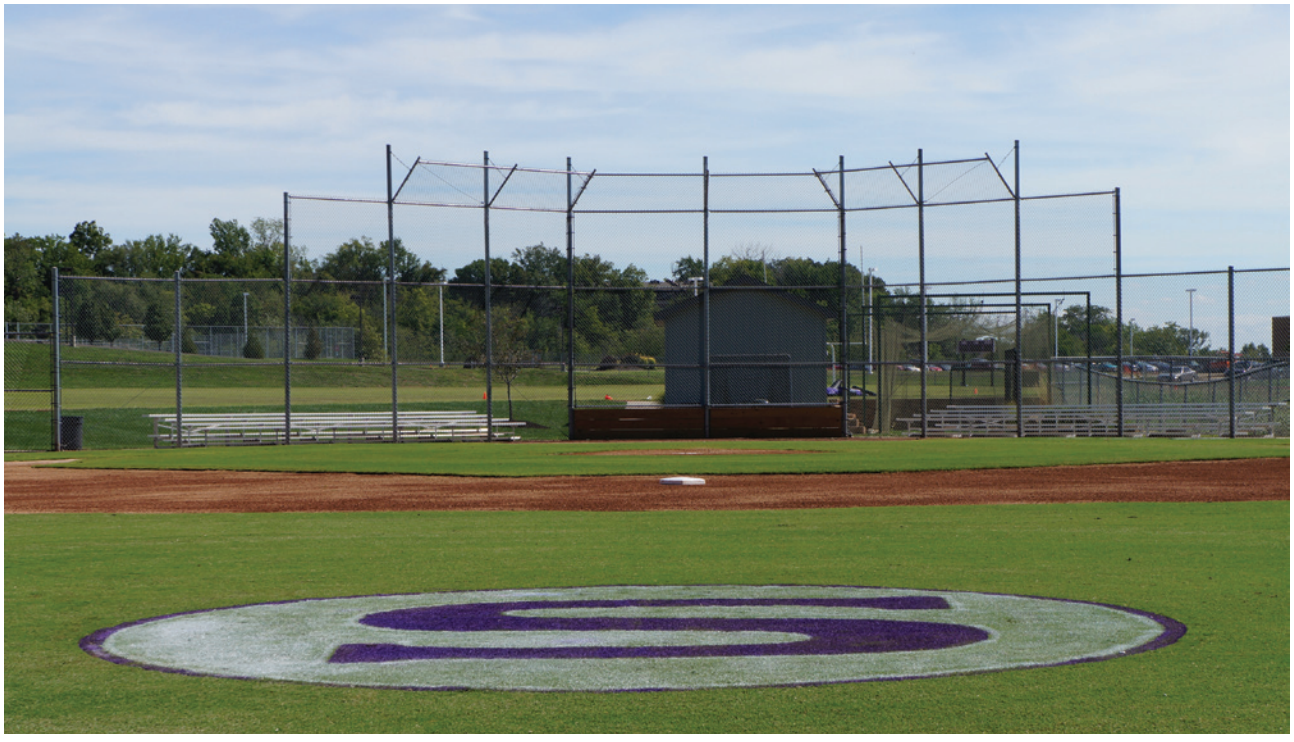






Category of Submission: Schools/Parks Softball
Sports Turf Manager: Eric Jones
Title: Head Groundskeeper
Experience: I have worked on athletic fields in the Park Hill School District for 15 years. I started working here as a summer job and it eventually led to my managing a high school sports complex and campus.
Original construction: 2007
Turfgrass variety: The softball field was originally sodded with Quickstand bermudagrass in 2007. In the fall the field is overseeded with ryegrass to keep the field green once it cools down. When I have a bare spot I use a cup cutter to take sod pieces from my nursery.
Rootzone composition: Native soil and clay





WHY STMA SHOULD CONSIDER YOUR FIELD A WINNER?

In 2007 my district remodeled our athletic complex creating a new softball field. I was involved in the design process. I choose to use bermudagrass since it would play perfectly coming out of the summer and into the fall season and is very low maintenance in the spring. Bermuda is not common in the Kansas City area. I also had the idea to have a grass infield. Most people thought I was insane, but I was able to sell everyone on it.

Since the bermuda is a warm season grass it is able to take the use and abuse of softball camps in July followed by practices in August and games in September thru October. When the field was constructed, red shale was used for the infield; it was new to me and I did not know exactly how to manage it. I quickly learned not to work it up too much and keep it moist.

Before the season, we apply 25 bags of Turface MVP and nail drag it into the first ¼ of an inch. We apply moisture to it as much as possible. I have found the best way to manage the skin is to lightly nail drag and take a field broom over the top.

My biggest challenge with the softball field is time, balancing my other tasks along with maintaining the field. I am responsible for five athletic fields plus a high school campus. I am responsible for everything, I have to mow, seed, aerate, spray pesticides, irrigate, paint fields and set up and clean-up after events. I also have had to paint the dugouts and foul polls, do equipment maintenance and landscape the common area around the field. During the season I find myself constantly edging the field. I frequently use a loop hoe and edger.

In the summer of 2012, I started my own sod farm with the edgings from my field. After a year's worth of care it has multiplied exponentially. I have been able to use the sod pieces for filling in bare spots on the field.

The weather over the past year was a big challenge. We had a drought all last summer into fall then a winter full of snow. It seemed like the snow would never end, we even had snow in the beginning of May. Finally the summer was abnormally cool causing the bermuda to struggle, until late August when it then got hot.

I've learned in this profession you can't have a bad day or take time off, you have to make the best out of every second you have. Good or bad everyone sees your work. It is my goal every day to provide a safe professional looking field.

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

Jones: Communication is actually one of the bigger challenges for me. I am outside working on the fields, while the coaches and administrators are in the schools doing their day jobs. The only time the coach has to contact me is the 5 minutes between classes. We find ourselves playing a lot of phone tag.

ST: What are your specific responsibilities?

Jones: I maintain an athletic complex consisting of five natural grass sports field and one artificial field, and several acres of common area.

ST: What tasks do you find most enjoyable?

Jones: The most enjoyable part of my job is being outdoors and at the end of the day getting to see the final product that the athletes enjoy playing on.

ST: What task is your least favorite and why?

Jones: My least favorite task is picking up the equipment and belongings that the teams do not clean up after themselves.

ST: How did you get your start in turf management? What was your first job?

Jones: I have worked on athletic fields in the Park Hill School District for 15 years. I started working here as a summer job but it eventually led to me managing a high school sports complex.

ST: What practices do you use to keep your infield skin in peak condition?

Jones: My infield skin is red shale; before the season I apply calcite clay and nail drag it into the top ¼ of an inch. During the season I lightly nail drag, field broom and apply moisture to it as needed.

ST: What changes if any are you considering or implementing for the winning field in 2014?

Jones: This year I would like to redo the bullpens by adding clay bricks to the pitching rubber and home plate area. It is my goal every year to try to do something new, such as a new logo, landscaping around the field or anything that will improve the field/facility.

ST: How do you see the Sports Turf Manager's job changing in the future?

Jones: In the future I see the sports turf manager's job becoming more professional and more concerned with safety of the student-athletes. ■

Equipment List

- 1977 B36000 Ford tractor
- John Deere 2653A Triplex Reel mower
- John Deere Tx turf Gator
- 6 foot Aerway aerator
- McLane edger
- Earthway broadcast spreader
- Echo backpack blower
- Homemade nail drag
- 7 foot wide infield finish broom
- Aerosol field marking machine
- Tamper
- Backpack Sprayer
- Field laser painter
- 2-30 inch field rakes
- 4-loop hoes
- 2-24 inch brooms
- Barrowed-Turfco Sod cutter

STMA would like to thank **Carolina Green, Ewing, Hunter Industries** and **World Class Athletic Surfaces** for their continued support of the Field of the Year Awards Program.

For more information on these and other products, please visit *www.greenmediaonline.com/productportal.*

Why reel grinding matters

By Steven Nixon

Editor's note: *Steven Nixon has been with Bernhard and Company since 2001 and was recently appointed its International Sales Manager, www.bernhardgrinders.com.*

Everybody knows a sharp blade makes a cleaner cut. Much to our frustration, we have all used a blunt knife, scissor or razor blade at one time or another and know how it hacks and tears at whatever we're cutting.

When it comes to turf maintenance, surgically-sharp mowers slice through grass blades, severing them cleanly and with minimal damage. Because the grass left in the mower's wake is the same height and uniform in appearance, overall turf definition is improved and the playing surface more smooth, healthy and consistent.

Financial benefits are derived from reduced expenditures on fertilizer, fungicide, chemicals and fuel (for mowing equipment), as well as increased revenues due in part to greater end user satisfaction with the turf.

The grinding process is crucial to maintaining the sharpest blades and, therefore, optimal turf conditions. To help you understand how it works, let's look at the two components of the cutting unit: the bedknife and the reel.

THE BEDKNIFE

The bedknife is the most important part of any cutting unit. Although it looks simple, it is actually a very complex piece of steel. The bedknife gathers the grass and holds it in position until the reel blade comes around to cut it.

Grinding the top and front faces of a bedknife helps to maintain sharpness. As its name suggests, the "top face" sits on top of the bedknife. It is a negative angle, meaning it slopes away from the unit's point of cut. This allows grass to be directed away from grass coming into the mower. The requisite degree of angle varies depending on the height and condition of the turf being mowed.

Once this angle wears down, the grass isn't ejected properly so the point of cut gets clogged. This prevents incoming grass from being cut cleanly.

The other angle is known as the "front face" angle. If the bedknife is the most important part of the mower, then the front face is the most important part of the bedknife, making good care of it especially critical.

The front face needs to be flat and even. If the face becomes worn or rounded, which it will over time because turf (and especially topdressing) is very abrasive, then grass will not be presented evenly to the cutting blades of the reel. Keeping the front face in tip-top condition is crucial to optimal turf health.

THE REEL

Often overlooked are reasons one should also spin grind the reel. Yes, it is to make each blade sharp, but it is also to ensure the reel is cylindrical and even. There is no point in sharpening all the blades if only every third one cuts because they are not of equal height.

Naturally, a reel that is maintained regularly is going to be easier and quicker to grind than one sharpened only once a year. Sharpening of the bedknife and reel is integral to maximizing their effectiveness and, in turn, turf conditioning.

A dull cutting unit (bedknife and reel) will tear at grass, leaving it uneven. These ripped and ragged blades bleed and lose plant moisture and nutrients. The open tips also leave them more vulnerable to disease from spores such as Fusarium and other leaf-spot afflictions. Repairing and regenerating the plants then requires a greater demand for food and fertilizer, driving up costs and impacting budgets.

Agronomically speaking, a reduction in the use of water, fertilizer, fungicide and topdressing is a benefit. Not only is use of these expensive consumables decreased, but also costs associated with handling of the materials, generating electricity to pump water, etc. Mechanically, trials at several training colleges have demonstrated fuel consumption reductions.

Going a step further, one can translate fuel reduction into increased mower life, reduced engine wear, fewer replacement parts—and it soon becomes clear that the benefits are very attractive to your facility's bottom line. Another added bonus? Less fuel use means a smaller carbon footprint.

Baseball maintenance aided with right equipment and off-field tools

By Jason Kopp

With the official start of the baseball season upon us, sports field managers all across the country will be preparing their fields for the rigorous season that lies ahead. There are many tools at your disposal to assess your field conditions like the STMA Playing Conditions Index (PCI) and BTF Field Maintenance Guide. After completing either of these forms you may find one of the following conditions on your field raises a concern and needs to be addressed either before or during the season: irrigation, nutrient management, home plate and pitcher's mound repair, skinned surface maintenance, and/or edging and lip removal. These completed forms will help you get a plan in place to address these concerns and to have a successful season ahead.

The STMA PCI assesses your field conditions using a scoring system. The PCI worksheet is broken down into four sections: Resources, Activities, Agronomics Performance of Turf, and Baseball/Softball Specific. Within each section you select your answer that has a corresponding number based on various conditions. Once the worksheet is completed, add up the numbers and place the total score in the box provided—this is your field's PCI. Having a completed PCI on a field could also be a useful tool if you are planning to apply for Field of the Year.

Another useful tool is the Field Maintenance Guide form the Baseball Tomorrow Fund written with Murray Cook, a field consultant of Major League Baseball. When developing a field maintenance plan there are a series of questions to answer that will help in determining needs that will be critical to the overall success of the any field renovation project. The Field Maintenance Guide also provides a checklist for you to ensure you have the necessary equipment in the Suggested Maintenance Equipment section. You will also find in this guide a brief discussion on mowing practices, aeration, irrigation, and several other tasks that are performed throughout the season.

While various topics are discussed in these guides, having irrigation is probably the most critical ingredient, whether for the turf or to aid in moisture management of the skinned area. If you have a system installed already, doing your pre-season start-up will provide you with water needed to get your turf ready for the spring season. Throughout the season having irrigation to supplement insufficient rainfall will also be critical for proper turf care, skinned and clay areas. If you have multiple sites at one location or throughout an entire city, the latest irrigation controllers are an excellent option that give you control through any desktop or laptop computer.

If installing one is in the plans, understanding the soil type, water service and flow, and field layout will be an essential part of the design process as will understanding the different rotors and nozzles available. Proper selection will ensure all areas get coverage to avoid hot spots in the turf that will come with the summer heat.

Turf concerns learned through these guides could be as simple as applying necessary amounts of nitrogen, phosphorus, and potassium and biostimulants to accelerate growth or it could be more complex like renovating portions of the field. When determining if a renovation project should be done on a particular field the rule of thumb noted in the guide is "if the turf has more than 50% weeds with a large amount of crabgrass or, if in the north, poa trivialis." Fall is the ideal time to do any field renovation which gives you the most amount of time until the start

of the season for it to become established which can be aided by the use of growth blankets. While renovating the entire field may not be possible due to many factors such as timing, budgets, and sod availability; doing smaller portions can also be effective in addressing field conditions. A youth organization for which I recently did a field renovation was given enough sod to do the entire infield and foul areas up to third and first base. With this portion done we were able to put together a plan to aerate, topdress, and overseed the outfield selecting turf type tall fescue seed, which would match the sod they were given, and with its dark green color and resiliency it is the ideal selection for their climate and situation. Seed rates could vary depending on seed type and establishment rates. With all the new seed varieties on the market and research being done on many others take the time before selecting your variety to do some research. Sites like NTEP.org or your local extension agencies are great resources as are other sports turf managers in your area.

When renovating the infield it is a great time to repair/replace the clay in both the pitcher's mound and home plate areas and check the slope and height of the pitcher's mound. Setting the pitching rubber at the correct distance and height is the foundation to build the rest of the mound off of. Take the time to ensure that all the measurements are correct and the intersect at the center point by pulling a measurement from apex of home to second, first to third, and apex of home to left and right corners of the pitching rubber. The landing areas of the mound are easily gauged with a slope gauge which should be set so every foot out from the pitching rubber the height is dropped one inch. Install your clay bricks in the landing area and cover with a thin layer of mound clay. After tamping this area you can lightly cover with soil conditioner or infield mix. The rest of the mound should have a gradual slope towards the turf edge. Lightly rolling this area will ensure proper footing for player safety. Dig out each batter's box and catcher's box to a depth of 3 inches. Install clay bricks and cover with a light layer of mound clay and tamp. Cover with conditioner or infield mix. Keeping these areas moist and covered with tarps will be important throughout the season to ensure they do not dry out.

With the majority of the work complete on the turf and clay, it's time to get the skinned areas ready. Proper footing and moisture management on these areas will be an important matter for you to ensure player safety and water is able to drain off preventing game cancellations or delays. Most field guides call for a typical grade of .5% up to 1% on the skinned areas and 1-2% for other areas. This will ensure water drainage and a near level playing surface for player safety. If the area is already established as little as 20 tons of infield material could be used to properly grade the area. If it has been neglected or a full renovation is done it could take 80 tons of material. Once the infield mix has been evenly spread and graded it is recommended that you incorporate a conditioner into the soil at a depth of 2-3 inches. Topping this off with another thin layer of conditioner will provide added benefits and give it a finished look.

Edging the turf on the infield can be accomplished with a walk behind edger and rake or a more efficient method is using edger and broom attachments available from Toro and other manufacturers. Edging your field should be done on bi-weekly during the season to ensure player safety and reduce the likely hood of lip build-up. Throughout the season proper dragging of the skinned area and base paths will ensure proper moisture management and keep a level playing surface. Be sure to keep all drags 6 inches from the edge of turf and base paths are raked from home to first and third and not side to side.

With these task completed you can now be sure that you have given yourself the best chance at a successful start to the season. Keep using your checklist which should be updated throughout the season to ensure your equipment is maintained, applications are noted, and you take several pictures will all be resources for you to use to plan for next season as well as have references if any issues arise during the season. Best of luck this season!

Jason Kopp has been in the sports turf management industry for more than 15 years. He currently is providing equipment solutions to customers in the sports turf and grounds industries and serving on the STMA Information Outreach and Chapter Relations Committees. ■

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