

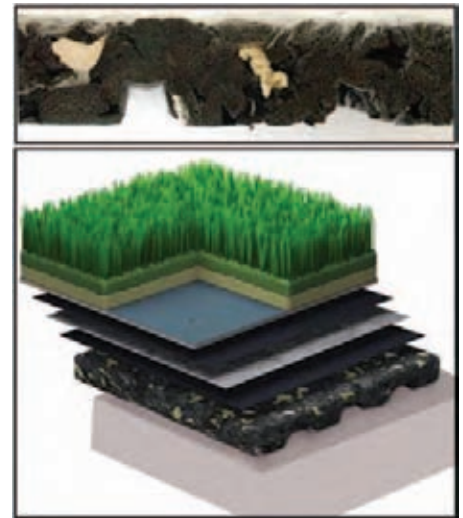
This 7,000-square foot project will enhance the need of the entire student body, from the sports programs to gym classes. The school found a simple solution to acquiring additional sport field space by recycling an outdated, under-used hard surface into a high-demand synthetic turf system.

The escalating need for durable fields that accommodate multiple sports and the inability to expand have prompted a rising number of facilities to look for modern alternatives to the traditional. They are no longer limited to renovating existing natural turf fields; parking lots, multi-purpose courts, parking garages, and rooftops are now all viable solutions. The demand has produced higher quality playing surfaces that replicate the look and feel of manicured natural grass on an impervious structure at a significantly reduced cost.

Sport DrainMax provides two very important design parameters when constructing synthetic turf fields, drainage—both vertical and horizontal, as well as impact

protection. It is designed to provide a virtual flat pipe under your entire turf surface requiring little slope. With Sport DrainMax, there is no need to remove the existing surface to construct an elaborate drainage system. In addition, the product is produced from 100% recycled foam, providing exceptional impact safety under the entire surface. The A2G synthetic turf system's design and function allows for engineered safety and performance directly under the entire turf surface. These new A2G turf fields can host a greater range of games, including contact and impact sports. A2G systems have been implemented for any type of sport including: soccer, football, baseball, softball, lacrosse, rugby and field hockey.

Engineered Sportfield Solutions continues to help owners, engineers, and turf professionals to develop these innovative technologies and implement them in cost effective Best Practice designs. ESS has extensive experience and data with almost



every type of synthetic turf infill on a base layer of Sport DrainMAX. By using this Drainage and Impact Attenuation Layer under the synthetic turf, the owner has the flexibility to choose any turf and infill combination to produce a high performing, safe athletic surface. ■


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FIELD MAINTENANCE · GAME-PRACTICE EQUIPMENT · TRAINING & CONDITIONING

What equipment every synthetic turf manager should have



» THIS 7,200-SQ. FT. SYNTHETIC TURF RESEARCH AREA at the University of Missouri's South Farm will focus on today's infill systems.

A few prominent turf managers who work on synthetic fields shared their lists of what equipment needs to be on hand to properly maintain the next generation infill products:

JARED HERTZEL, Head Athletic Turf Manager, University of Nebraska

Here is some of the equipment that we use:

- Littercat (pulls behind a utility vehicle)
- Groomer (pulls behind a utility vehicle)
- Irrigation system or other ways to apply water
- Extra turf and crumb rubber
- Vacuum/ShopVac
- Adhesive construction glue
- Gum remover
- Backpack blower
- Utility knife
- Sand for sub-base low spots
- Shovel
- Snowblower
- Tractor
- 2-foot diameter tile drain tube for snow removal

- Needle and thread
- White rock for base
- Tamp
- Rack
- Phone number to Midwest Fieldturf
- Manpower

DARIAN DAILY, Head Groundskeeper, Paul Brown Stadium

Equipment we use on our synthetic field:

- GreensGroomer (a must have; if you get nothing else to maintain your field, a Greens-Groomer is the one thing to get)
- Sweep-N-Fill (a dual rotating brush that evenly distributes rubber; great for synthetic or natural turf)
- Tow-behind magnet
- Buffalo Turbine blower/back pack blower (the use of air to move trash, seeds, and other debris has been a time saver)
- Billy Goat debris vacuum (picks up the trash and debris)
- A good removable paint as well as a paint removing machine (for the markings of the other sports, not inlaid)

MIKE MCDONALD, CSFM, turf manager, University of Minnesota

Tools needed:

- Sweeper/cleaner of the turf
- Brush/broom for fluffing of the turf
- Tines for decompacting of the turf
- A magnet attached to a piece of grooming equipment
- A sprayer to knock down/static cling of the rubber (some machines have some or all of these with one unit/attachments, some are individuals pieces)
- Backpack blower
- Pull-behind big blower
- Walk painter if lines are not inlaid
- Paint remover machine if painting field
- Sewing/patching glue kit
- If in snow regions: walk snow blower; tractor snow blower; snow pusher; truck with snow blade

SYNTHETIC TURF MAINTENANCE RECS

From the Sports Turf Managers Association's *A Guide to Synthetic and Natural Turf-grass for Sports Fields*, here are maintenance recommendations.

"All synthetic turf manufacturers have recommended grooming practices. Generally, these include sweeping, dragging, and watering for a clean, uniform appearance. Depending upon use and weather conditions, a sand/rubber mix may need to be added annually to help restore the field's resiliency. The sports turf manager will also need special knowledge in troubleshooting and minor repairs, such as seam repair and snow removal. The installer can provide this information per the manufacturer's guidelines.

"All synthetic turf manufacturers have recommended grooming practices. Generally, these include sweeping, dragging, and watering for a clean, uniform appearance. Depending upon use and weather conditions, a sand/rubber mix may need to be added annually to help restore the field's resiliency.

JOHN MASCARO'S PHOTO QUIZ

Answers from page 17

This brown and green turf was a mystery to the sports turf manager at this facility so he called in a person who had years of experience as a former sports turf manager at the University of Miami. He too was puzzled by the appearance of the field as they looked perfectly fine about 2 ½ weeks before this picture. To figure things out, he had them turn on their irrigation system and found that there were several heads that were not operating properly. Some were not turning, some were not adjusted to full circle and some were even clogged with just a dribble coming out.

The field had been overseeded with ryegrass and it had germinated nicely during the South Florida December that even produced some mid-90 degree days. Suddenly the area got hit with back to back cold fronts that brought two pretty hard freezes to the area. The brown areas reflect the areas of the turf that the irrigation malfunctioned, which allowed the turf to dry out in the high temperatures and the ryegrass died revealing the dormant bermudagrass. The green areas are the areas that the irrigation system was working properly and the ryegrass had survived both the heat and the freeze. The brown areas of dormant bermudagrass recovered in a couple of weeks and everyone was happy once again.

Photo submitted by Kevin Hardy, president of Ballpark Maintenance, Inc., Miami, FL.



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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"Special solvents and cleansers are used to remove tough debris. Proper testing and a good design will usually mean that drainage is not a problem, if the field is constructed correctly. If the field is used for more than one sport, a plan will need to be developed that follows the manufacturer's recommendations for changing markings. Options may include using different paint colors for different sports; painting over existing lines with green paint; or actually removing the lines and repainting.

"The typical cost range to maintain a synthetic field will vary and can range from \$5,000 to \$25,000 per year, including labor, minimal equipment depreciation and water. It is much more expensive to maintain synthetic fields that are highly visible, frequently televised, or when used for multiple sports. The cost can even be higher if field markings must be painted and cleaned often, or if frequent repairs are necessary."

NON-SPORTS EVENTS & WARRANTIES

For concerts, graduations, truck shows and so on:

"Care must be taken to protect each type of field surface. Typically, a sports turf manager will place a protective covering over the turf and will develop a plan to safeguard the turf during the event. Types of materials that should be considered to protect the field surfaces for staging and roadways are:

- ¾ inch plywood (may require two layers)
- Pre-manufactured road mat; and
- Geo-textile blanket.

Other materials are available for flooring protection under the staging and for the seating areas. These products should be investigated to find the one that best suits the event situation. The use of these additional materials to host such events should be taken into consideration and incorporated into the overall cost to produce the event.

"Concerns from these events include burns from fireworks, cigars and cigarettes; surface contamination (debris); security; and weight of materials (staging) resulting in major damage to the grade, which can be expensive to repair.

"Flooring that is more specialized for seating may be necessary for certain events (graduation and concerts). Warranties should be reviewed before holding events to prevent voiding them."

DEVELOPING AN EQUIPMENT LIST

"Your sports turf manager will develop a capital budget and replacement schedule, and a utilization schedule to optimize the use of all equipment and accessories. School districts and parks districts often share equipment among different departments. Care should be taken to utilize all equipment per

the manufacturer's instructions.

- Grooming equipment: typically some type of broom, brush or tine that is dragged over the field to stand the synthetic fibers up and to distribute the crumb rubber.

- Utility cart for grooming/cleaning equipment, pushing snow or operating sprayer.

- Spraying equipment: to stop weeds from growing through the synthetic surface, to lessen the static charge from the crumb rubber, and to apply wetting agents.

- Sweepers: to remove trash and other materials from the playing surface.

- Blowers (back pack and 3 pt. hitch): to blow clean the turf of trash.

- Vacuum: to remove small items, such as sunflower shells and peanut shells.

- Topdressing equipment: to periodically redress areas that have lost crumb rubber.

- Sanitation equipment and sprays for the spot removal of bacterial growth from bodily fluids

- Pressure washers or other flushing equipment: to remove unwanted fluids or contaminants.

- Spiking equipment: for de-compaction and/or to help with redistribution of crumb rubber.

- Irrigation system (some manufacturers require irrigation to maintain warranty.)

- Painters for adding additional lines and mechanical scrubbers for cleaning painted lines on the synthetic turf.

- Special rubber blade snowplow"

SYNTHETIC TURF COUNCIL MAINTENANCE RECS

Here is an excerpt from the maintenance guide published by the Synthetic Turf Council in 2007:

"Maintenance procedures implement the processes available that will help assure continued performance of the system as specified in relation to the declared purpose and use of the synthetic turf surface.

"General surface cleaning. Airborne pollutants such as leaves and other debris should not be allowed to remain on the surface for any length of time. If not removed, they will migrate into the system, forming a drainage inhibition within the surface which can reduce drainage effectiveness.

"A wide soft broom can be used for removing the surface debris. A mechanical leaf sweeper or special vacuum cleaner which does not remove the fill can speed up the operation. Such equipment must be well maintained and carefully operated to avoid contamination or physical damage to the surface.

"Grooming. Proper grooming achieves a freshening of the synthetic turf surface appearance. It is a crucial operation which will help prevent the premature deterioration of

Synthetic turf field reclamation machine



THE TURFMUNCHER'S patent-pending reclamation process allows owners to have their old fields reused or recycled instead of sending them to the landfill. Manufacturer FieldAway says according to industry estimates there are approximately 6,000 third-generation synthetic turf fields containing sand and/or rubber infill in North America alone. Existing synthetic turf fields in Europe probably account for more than twice that number. These fields represent a significant amount of material that ultimately must be removed and disposed of in some manner.

Since most turf manufacturers warrant the useful lives of their products for 8-10 years, it is estimated that as many as 2,500 synthetic fields will be either removed or reclaimed in North America in the next 5 years and up to 1,000 fields will be removed annually over the following 5 years.

The typical installed field area is approximately 80,000 square feet and weighs around 8 pounds per square foot, with the turf weighing .5 lbs./sq. ft. and the sand/rubber infill 7.5 lbs./sq. ft. This means that each field averages 320 tons of material that must be either removed for disposal or reclaimed for recycling. The potential environmental effect of this material working its way to our landfills is disturbing.

After TurfMuncher reclamation, turf recycling options include reuse of the field in other settings, conversion to energy, and use for molded parts. Reuse options include practice fields, batting cages, driving ranges, residential and commercial work areas, and dog runs, as well as landscaping and erosion prevention applications. Sand and rubber infill recycling opportunities include reuse on other sports fields, in various construction projects, and for landscaping or soil treatments. FieldAway says as commercial channels continue to develop, the value of these materials will continue to increase and become more marketable. -Eric Schroder ■

the performance characteristics, appearance, and drainage properties. Mechanical grooming can accelerate the process when the proper equipment is chosen and operated by skilled personnel.

"Drainage is essential to effective maintenance. It is possible that the bed of infill material serves as a filter. Infill can unavoidably retain inert particulate matter conveyed or blown onto the field or carried by rainfall or other air contaminants. By moving and re-leveling the upper layers of infill, mechanical grooming can delay the timeline when problems may begin to occur in the normal course of use, which could reduce the drainage process.

"Accumulation of unwanted or foreign materials is inevitable. Too much grooming, or the negligence of grooming, can affect the long term turf performance, even if such does not appear in the short run. Should a contaminant have a growth potential, the species and its eradication agents should be carefully identified and removal should be immediate before serious infestation occurs. Equipment designed for that specific purpose must be operated by skilled personnel who have precise knowledge of its effects.

"Routine maintenance, if regularly applied, can reduce the long term effects of any external contaminants, making such occurrences almost a non-issue.

"Brushing. It is important that the synthetic turf pile is maintained vertically. Regular brushing is an important function that must not be overlooked or neglected. The surface should be brushed in a number of directions, alternating the direction in consecutive activities, but generally in the direction of the individual panels to avoid crossing over the main seams."

EQUIPMENT SELECTION

"Turf and maintenance equipment manufacturer's advice should be sought when considering any type of maintenance operation and the use of any equipment or procedures not recommended by the manufacturer of the system. The objectives of the maintenance process must be understood.

"No two machines will operate to the same degree of efficiency and effectiveness. The condition of the surface will also affect the operation of the equipment. Both conditions should be evaluated.

"Most maintenance equipment utilizes a brush or brushing action. It is critical that the type of brush used does not abuse the condition of the surface. Drag brushes behind the power unit are normally not recommended because they tend to flatten the pile and generate the need to implement the cleaning operation twice or more unnecessarily. If drag

brushes are to be considered, a test strip should be used to determine whether or not the effect and process of those brushes are desired. Brushes that have a rotary action in a horizontal position in front of the pile unit are preferred since they agitate the blades of the synthetic turf. The simultaneous vacuuming action should remove the undesired pollutants and debris.

"Power brushing equipment may agitate the infill to various degrees. The type of brushing, vacuuming, de-compacting, and final grooming should be relevant to the end result. The objective of each grooming routine should be determined prior to initiating the selection of the maintenance equipment, i.e., stand up of the pile and clean or level the infill within the pile; provide uniform performance characteristics; etc."

FREQUENCY

"A change in the use patterns and the intensity of play can influence the frequency of maintenance. The manufacturer should be consulted to recommend an initial maintenance schedule. It may take up to six months for the infill to finally settle into the pile of the synthetic turf. Environmental/climatic and use conditions may affect the final settling.

Testing of the synthetic surface should occur as noted in the "Suggested Guidelines for the Essential Elements of Synthetic Turf Systems," published by the Synthetic Turf Council, and available on www.syntheticurfCouncil.org."

TOOLS AND EQUIPMENT

"Experience has demonstrated that the longevity of the field and the effectiveness of the maintenance are very much dependent upon the use of proper tools and equipment and the skills of the operator. The criteria and specification of the tools and equipment to be used should be understood at the time the field is accepted by the owner/user.

"The type and quality of the equipment should be suited to the use and construction of the field. Proper selection is an essential element to the successful application of the maintenance procedures. The desired performance of the equipment must be able to restore the characteristics of the surface without damage. It is essential that a discussion take place between the provider, the maintenance equipment manufacturer, and the owner prior to acceptance of the field. Pre-testing of the equipment on location may assist in the selection process." ■

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Redexim North America introduces Turf Stripper

Redexim North America has introduced a new tool for turf managers, the Turf Stripper 2000. The Turf Stripper is a rugged, economical and efficient machine used to mow, level, de-thatch and renovate turf areas using a rotary action that removes material and deflects it onto a conveyor to be carried away. The Turf Stripper 2000 is equipped with custom blades that allow the machine to be highly productive, yet can be adjusted in small increments. An option verticut blade kit can be installed in place of the standard blades when the machine is to be used for verticutting fairways, sports-fields or common areas. The machine is also a highly effective method of harvesting sprigs when trying to introduce bermuda and other grasses to new areas.

Redexim North America



"Line Expert" walk-behind striper

Kromer introduces the LINE EXPERT airless, high-pressure walk behind line striper that is designed for budget conscious buyers. The unit is a multi-purpose liner for natural & synthetic turf as well as asphalt and it features freely adjustable (no tools required) high pressure from 200 to 3,000 psi. Paint your athletic fields, parking lots, track and field events, and logos/stencils with just one machine. The unit is priced under \$2,000 delivered!

Kromer



Synthetic turf seam repair kit

Whether it's seams, logos, hash-marks, or lines; seam failure is inevitable. The ESS Seamlok 420C repair adhesives are eco-friendly solutions tested and proven to be effective for permanent synthetic turf repairs. This non-hazardous two-part, polyurethane adhesive has been designed using Mix on Demand technology, dispensing the exact ratio of components to achieve superior bonding with no waste. The system is designed for ease of installation so that anyone can perform a simple turf repair in minutes.

Engineered Sportfield Solutions



Pigment spray additive

Optimizer Green Shade is a green pigment spray additive marketed by United Turf Alliance that enhances turf quality and appearance, while blending color variations caused by stress, phytotoxicity and cultivar inconsistency. It also improves application accuracy by serving as a spray pattern indicator. Optimizer Green Shade can be used on athletic fields and other maintained areas where turf color, quality and spray accuracy are important. It protects turf from the negative impact of UV sunlight and is tank mix compatible with most fertilizers, herbicides, fungicides, wetting agents and plant growth regulators. It may be used as a recurrent component of a spray program and to provide green color to dormant turfgrass.

United Turf Alliance



Kifco Water-Reel

The Kifco E200SST Water-Reel can cover a synthetic football field in 30 minutes, quickly cooling and conditioning the field for use. The E200SST runs un-attended and automatically shuts down so the field staff can perform other pre-use task. The E200SST requires no in-field plumbing and when it completes it run, the tube is reeled in and ready for transport. Mounted on a compact, portable and integral three-wheeled cart, it can be quickly and easily moved from the field of play for safety. Progressive facilities have embraced the E200SST for a quick heavy spray down of synthetic turf prior to use because it is paramount for athlete health, safety and overall playability.

Kifco



New Deere zero-turn & fuel savings

The new John Deere ZTrak™ PRO Z925 with Electronic Fuel Injection (EFI) can help by providing up to 25% fuel savings. The Z925 EFI offers a closed loop fuel injection system that constantly monitors engine performance. Fuel injectors respond to the load on the engine with the right amount of fuel, delivering maximum fuel efficiency for the conditions. With a closed loop system, the engine actually checks for unused oxygen in the exhaust multiple times per second," said Jamie Palmer, John Deere product manager. "This means the engine can fine-tune the amount of fuel injected into the engine, resulting in up to 25% fuel savings in real-world use."

John Deere



New Cub Cadet zero-turn riding mower

The Cub Cadet TANK LZ and TANK SZ Commercial zero turn riders include exclusive, ground-breaking technology. The TANK SZ (which denotes Steering wheel Zero turn) delivers maneuverability, turf protection and traction, even on steep inclines, due to 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. Both zero turn riders come standard with Cub Cadet's most advanced cutting deck system engineered for low maintenance, unsurpassed professional quality cut and durability. And starting at \$6999 and \$7999, nothing in the market comes close.

Cub Cadet Commercial

Fixed gallonage nozzle system & tips

Kochek introduces their Fixed Gallonage Nozzle System NZ036 and Fixed Gallonage Tips NZ036 -15, 25, 35, 55. These constant flow nozzle tips use Kochek's exclusive "Multi-Mist" technology and conical turbulence fire technology. With advanced flow censoring the accuracy of GPM output at 100 PSI is absolute! The Kochek "Fixed Tips" with full flow misting will output flow rates of 15, 25, 35 and 55 GPM. The "System (NZ036)" is sold as a kit with interchangeable tips, including a valve and adapter for versatility or the tip and valve body are sold individually for the Superintendent or Turf Manager that knows what flow rate is correct for their facility.

Kochek



Updated Turfgrass Water Conservation for sale

An updated edition of *Turfgrass Water Conservation*, by Stephen Cockerham and Bernd Leinauer is now available. Water is an increasingly valuable and limited resource, often perceived as being wasted on turfgrass. This much-anticipated second edition brings clear, current, science-based information on turfgrass management and water conservation to turf managers and researchers alike. Inside you'll find a look at the current understanding of water use as well as new technologies being researched to reduce water use by turfgrass. Attention is paid to water quality and turfgrass as a key part of the urban environment, how integrating turfgrass with other landscape uses of water can be part of a conservation plan, and how various water qualities, including reclaimed water, can be part of a management plan.



New turf-friendly replacement track creates minimal ground disruption

Bobcat Company introduces new turf-friendly replacement track designed for the compact track loader. The track is designed to fit the T250, T300, T320, T750 and T770 model compact track loaders. Ideal for landscaping and buildings & grounds applications the flat, even profile of the Bobcat turf track prevents the tearing and cutting of lugs. The tracks create reduced ground pressure, a significantly lighter footprint than conventional tracks, minimal ground disruption and a reduced risk of damage to irrigation systems and underground utility lines. Engineered in a state-of-the-art facility, using patented belting technology and a proprietary rubber compound formula, the turf-friendly tracks are incredibly versatile and provide excellent longevity on hard surfaces such as pavement and asphalt.

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F.O.Y.

Field of the Year



Kari Allen, CSFM, sits on the mower. Next to her is grounds manager Peter Charcut, with student workers Rodkym Jackson and Jack Holden (in front).

Allen overcomes high traffic volume to win 2nd 2010 Field of the Year

Kari Allen, CSFM, the sports turf manager for Benedictine University (BU) in Lisle, IL, won two Sports Turf Managers Association Field of the Year Awards for 2010, one for softball and the field we highlight this month, for College Baseball.

Allen, who has her bachelor's degree from Michigan State in crop and soil sciences with the turfgrass management option, spent 7 years plus an internship as a groundskeeper in minor league baseball before getting married and looking for more stable working hours. She works for Sodexo, which has the contract to maintain the athletic fields at BU, and credits her part-time and seasonal staff for helping to win the award: Peter Charcut, Tim Swanson, Rodkym Jackson, Jack Holden, and Pat Collis. BU baseball players also volunteer to assist during the season, she said.

The field features Kentucky bluegrass, perennial ryegrass and annual bluegrass and Allen reported she sometimes top-dresses problem areas with calcined clay. "Even though sand is far less expensive per ton than calcined clay," she said, "I have difficulty getting approval to purchase proper topdressing sand."

Allen said, "There is no subsurface drainage system in place. Surface drains appear to have been pieced together and 4-inch tile added to areas someone thought necessary. I don't know what, if anything, these lines tie into."

"There is a drain tile with several catch basins running the perimeter of the warning track; this tile empties onto the ground just outside the outfield fence and the inconsistent grade also causes problems with surface drainage," she said.

Allen said the high amount of play this field supports is her biggest challenge. "This field is used for both college varsity and junior varsity teams' practices and games, a summer prospect team's practices and games, a senior men's league games, high school games, various tournaments, showcases, and youth league games."

"To combat problems affiliated with overuse, I frequently oversee the areas commonly prone to wear, even before signs of wear become visible. Since implementing

this practice, the field has shown fewer or smaller bare areas than without the seed. I also try to get the players to spread the wear; while I have not been in getting the teams to use all of the turf protectors for batting practice, I have been able to convince most of them to move the shag screen around slightly, move off the foul lines to warm up, and move conditioning drills to a grassy area just outside the playing field.

"Another challenge I face is the length of time the tarp remains on the field. Unfortunately, common practice is for teams to tarp the field and leave it on for 2 or 3 days until the next game or practice, regardless of weather conditions. I have met with coaches and the facility manager, laying out the facts explaining why the tarp should be out for the least amount of time possible and while they are in agreement with me to my face, getting them to implement a proper regimen is another story!

"So I enacted a couple of techniques to help the situation as best I can. I pull the corners of the tarp in whenever possible so that if the grass burns, a distinct yellow square is not visible. The infield grass is certainly off-color but a distinct square of it set on a canvas of healthy, darker green grass is not evident. If I am unable to pull the corners in, and the grass burns, I will sometimes use a mowing pattern to disguise the burn as best as possible.

"Of course, neither of these 'solutions' addresses the issue of disease. For that I was finally able to get some blowers to go under the tarp this year. They're not exactly what I wanted but getting some air movement under there is better than none. I also try to make preventative fungicide applications to the areas covered by the tarp. This doesn't happen as often as I would like, and once in awhile I do have to make a curative fungicide application. I also overseeded the entire field with newer, more disease-resistant varieties." ■



>> **ABOVE:** One and a half strips of sod were replaced along the back edge of the skin in November 2009. Some of the sod was cut much thinner than the rest, and even though it was starting to root quite nicely, once the players started using the field, they were tearing the thinner sod up. In April and May, I seeded over the areas getting torn up, and it was completely filled in by the end of May. >> **BELOW:** Close up of what all the splotches on the previous picture looked like after removing the tarp. Teams began using the field immediately after removing the tarp, so the next day, I raked these areas open and applied fungicide.



>> **ABOVE:** This photo shows the low area in right field, where grass got torn out with aggressive squeegee rolling, at its worst, from a distance. Small wear areas visible by the bullpen, second base, and umpire area.

Where are they now? Following up with 2010 Student Challenge winners

Purdue University

Our students typically begin preparing for the Student Challenge 3-4 months before Conference by attending 1-2 hour review meetings every 2 weeks. Teams begin taking mock exams from September until one week before leaving for the Conference; these mock exams include all aspects covered on the actual Challenge exam. We bring in local superintendents and sports turf managers to cover real life scenarios for the short answer/essay sections and maintain our own greenhouse for turf and weed identification.

Zak Peterson and Joey Gerking will be graduating in May 2012 and are actively pursuing employment upon graduation. Justin Shirley graduated May 2011 and is working as an intern for the Milwaukee Brewers grounds crew. Cody Whitis is currently working in the golf sector in Indiana.

The students chose to use the prize money to help a local middle school (Klondike Elementary) repair their practice pitching mounds on the baseball field and slit-seed and establish a fertility regiment for their football field. The team re-graded the pitching mounds with new clay and set new pitching rubbers. The football field wear areas were prepped to establish good seed to soil contact, slit-seeded and fertilized to aid in good recovery before the season began. Plans are to revisit the two fields to repair any seasonal damage and



WINNERS FROM MT. SAN ANTONIO COLLEGE (L to R): Steve Dugas (coach), Pat Escalera, Kevin Marsh, Chaz Perea, Wade Anderseck, Matthew Janney, Chris Romo, Brian Scott (coach) and Tom Skelton.

apply additional fertilizer as needed. The team also spoke with the athletic director regarding additional maintenance such as irrigation practices and weed management.-Tracy Tudor, graduate research assistant-turfgrass science, Purdue University

Mt. San Antonio College, Walnut, CA

With our winnings we are constructing a 50% scale Little League field for Wiffle ball. It will have a pitcher's mound, turf infield and outfield with skin base paths and an outfield fence. This will be used to demonstrate the many facets of maintaining a baseball field (as well as much needed departmental recreation!). Gail Materials donated the infield mix and pitcher's mound

clay, Hunter Industries donated irrigation equipment, and Spears Manufacturing donated the fittings. Thank you!

We have also installed sports turf demonstration plots for turfgrass identification and observation. These were installed on May 14, 2011 by agriculture students from Buena Park High School and Mt. SAC Horticulture Science students. Many thanks to West Coast Turf for donating the turf and to Sports Field Turf Services for donating the Axis soil amendment.

Here's an update on our team: Pat Escalera is currently employed at Mt. SAC as an equipment operator/sports turf specialist. Chris Romo was just hired at Mt. SAC to help care for the athletic facilities. Kevin Marsh works for Brookside Golf Course as an interim assistant superintendent. Chaz Perea is the landscape manager at Dodger Stadium. Tom Skelton and Wade Andersek work for a water management firm in southern California. Matt Janney is currently not working in this industry.

Pat, Kevin, Matt and Chris are all still in school working toward their A.S. degree in Park and Sports Turf Management. Chaz just graduated with his degree and is teaching an Integrated Pest Management class here at Mt. SAC. He is planning on enrolling at Penn State Spring 2012 using their distance learning courses to obtain his bachelor's degree in turf science.-Brian Scott, horticulture professor, Mt. San Antonio College. ■



PURDUE'S WINNING TEAM (L TO R): Team coach Tracy Tudor, Zak Peterson, Cody Whitis, Justin Shirley, and Joey Gerking pose with Challenge sponsor Hunter Industries' Lynda Wightman.