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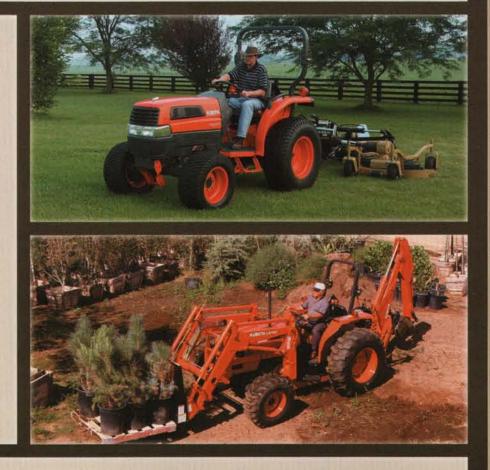
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Maintenance Program

Jan/Feb

Begin heating the field to allow practices Plow/melt snow to allow practices Manage infield rain tarp to allow practices Irrigate turf as necessary to prevent winter dessication Maintain sub-surface heating system Attend STMA annual conference

March

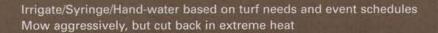
Warm field to prepare turf for home games Begin bi-weekly liquid fertilization program to jump-start turf (30-0-0, micronutrient package, biostimulant, and wetting agent) Begin mowing turf daily Irrigate turf as needed

April/May

Fertilize bi-weekly with 17-0-34 at rate of 1/2-lb. N per 1,000 sq. ft. Apply extra fertilizer to wear areas as needed Apply seed to areas as needed Continue liquid fertilization program bi-weekly Mow turf daily to 7/8-in. height using triplex ride-on reel mower Irrigate as needed

June/July

Reduce amount of N applied to field to help disease control Continue liquid fertilization program bi-weekly



August

Mow turf daily to 7/8-in. height Fertilize with liquid and granular products bi-weekly Irrigate/Syringe/Hand-water based on turf needs and event schedules Spot-treat diseased areas if necessary following standard IPM

September

Continue bi-weekly fertilization program Irrigate/Syringe/Hand-water based on turf needs and event schedules Mow field 4-5 times per week to 7/8 inches

Oct/Nov

Core aerate the entire field with 5/8-in. hollow tines at the rate of 25-30 holes per square foot Topdress field with 90:10 sand/peat mix to match rootzone Continue granular and liquid fertilization programs Mow as needed Irrigate as needed

December

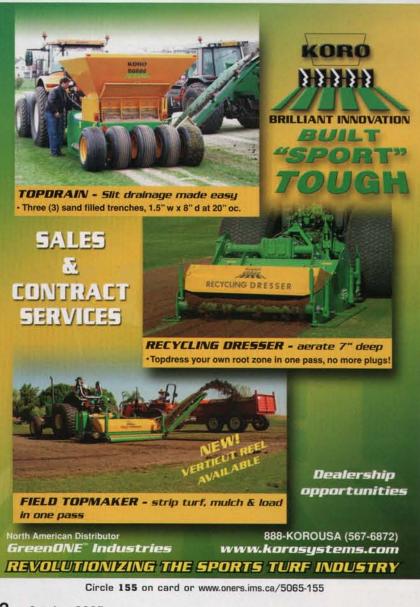
Prepare equipment for upcoming season Take vacation

ulated airflow, allowing sub-surface heating, which in turns allow practices when most fields in the north aren't open. Of course, this means Roeber and crew sometimes need to remove snow from the infield cover before January practices. They use a tractor with a rear blade (featuring a rubber edge) to push snow off the infield tarp to the warning track, then use a blower to remove it from the track and bullpens.

Rhonda Revelle, Nebraska's head softball coach, said in a letter to the STMA: "I have been a part of Nebraska softball for 20 years . . . the new stadium and the pride with which Jennifer and her staff maintain and innovatively improve it has affected Nebraska Softball in every way imaginable. Bowlin Stadium has become a very important rung in our recruiting process. Athletes are able to see the pride and the tradition of our program."

Bowlin Stadium has hosted NCAA Regional tournaments in two of the three years the national tournament has existed.





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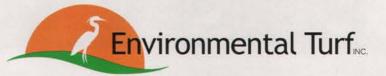
Studies show that SeaDwarf[™], a fine-bladed, warm-season sports turf and the only true dwarf Seashore Paspalum cultivar, heals twice as fast from sports-related wear as bermudagrass. What this means for sports turf managers is faster recovery from sports-related wear.

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Missouri renovates outfield in winter

BY MELISSA EVERITT

ho would have thought that a baseball outfield could be completely renovated during the winter season in mid-Missouri? The University of Missouri in Columbia did, and completed a \$150,000 renovation of the Simmons Field outfield during one of the wettest winters on record. For the first time since the field was built in 1959, Simmons Field at Ralph & Debbie Taylor Phi Delta Theta Stadium received a new drainage system, sand cap, warning track, and new sod, with all the work done in November 2004 through February 2005. Since '59, outfielders had had to make the most of playing on an uneven surface with unacceptable grades, leading to muddy and slippery conditions. After having numerous problems with drainage, maintaining adequate turf cover, and weed infestations in the 45% common Bermudagrass and annual bluegrass outfield, Mizzou decided last October to make some drastic changes.

In order to have Simmons Field ready for the 2005 season, quick and efficient measures had to be taken. Renovation began on November 13 with even head base-ball coach Tim Jamieson tilling up the old turf. As the crew moved in to start

demolishing the old outfield, so did Mother Nature and the rain. The four inches of topsoil that had recently been tilled soaked up much of the rain, creating a sloppy and heavy mess with a consistency resembling a feedlot. On December 9, contractor MJM Services Construction knew that it would be critical to get the top layer of soil removed, grade the existing subsurface, and get subsurface drains installed before the next episode of winter weather set in. Their crew accomplished this task, removing all the quagmire of material that had accumulated over 50 years.

Eight inches deep into the Missouri sub-surface clay, a polyethylene drainage system was installed in a herringbone pattern. Then 4,000 tons of 90/10 rootzone medium (USGA spec. 90% sand, 10% peat moss) was laid, which was difficult because the material had to be transported through a single access point, created by removing sections of outfield fencing. The contractor some days had to wait for the sand mix to thaw before grading it, but MJM diligently created a stable, consistent rootzone medium on which to lay sod.

Bluegrass blend

MJM began laying large rolls of Kentucky bluegrass sod on February 17 and completed the task in a day and a half. The 10,000 yards of sod, grown locally at Evergreen Sod Farm, consisted of a blend of four varieties—Midnight, Denim, Brooklawn, and Unique. Because the sod had been grown in a very high sand con-



zone. Immediately, the sod was fertilized with 1.5 lbs. of nitrogen per 1,000 sq. ft. with a 10-24-18 product. Then 0.5 lbs. of nitrogen per 1,000 sq. ft. per week with a 46-0-0), a biostimulant (Launch at 1 quart/1,000 sq. ft., four applications weekly), and a micronutrient program to ensure the establishment of the sod through the remaining winter months. This fertilization treatment continued through the spring and has proved successful, as the sod is very tightly tacked down and knitted across the seams.

tent soil, it took well to the root-

To top the project off, a new warning track and surrounding fence was put into place. Polyethylene drains were included under portions of the warning track (center field), as they were in the outfield. A stone base was then laid for the warning track, covered by crushed red brick that would give the warning track great stability and red color. Because the outfield had been specked to a 1% grade after the turf was laid, the fence around the warning track had to be replaced to create a seamless transition. C&C Construction, a local residential contractor, constructed the fence with materials donated by local businesses Boone County Lumber and Mid-City Lumber.

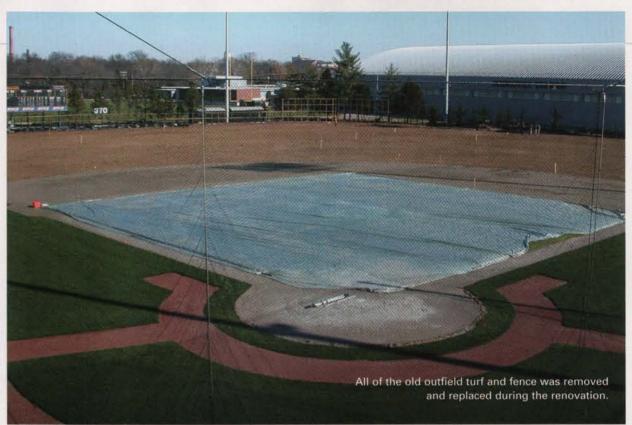
The project involved removing the old plywood fence, restructuring of the fence framework, and completely replacing the outfield wall. The new wall is constructed of high-grade outdoor materials that can stand the test of weathering. C&C construction also coordinated the painting of the fence, which involved covering more than 200 sheets of material. This part of the renovation was completed by February 14.

Finally, after 55 possible workdays, braving the winter weather and difficult working conditions, MJM Services finished the renovation February 25. To maintain the new field (and other fields), Mizzou is employing student interns from the Turfgrass Management program, coordinated by University turf specialist Brad

Fresenburg. A sports turf practicum course is also being designed for students to receive credit by meeting certain objectives in their sports turf management education. One of those objectives is submitting a "Field of the Year" award application to the Sports Turf Managers Association.

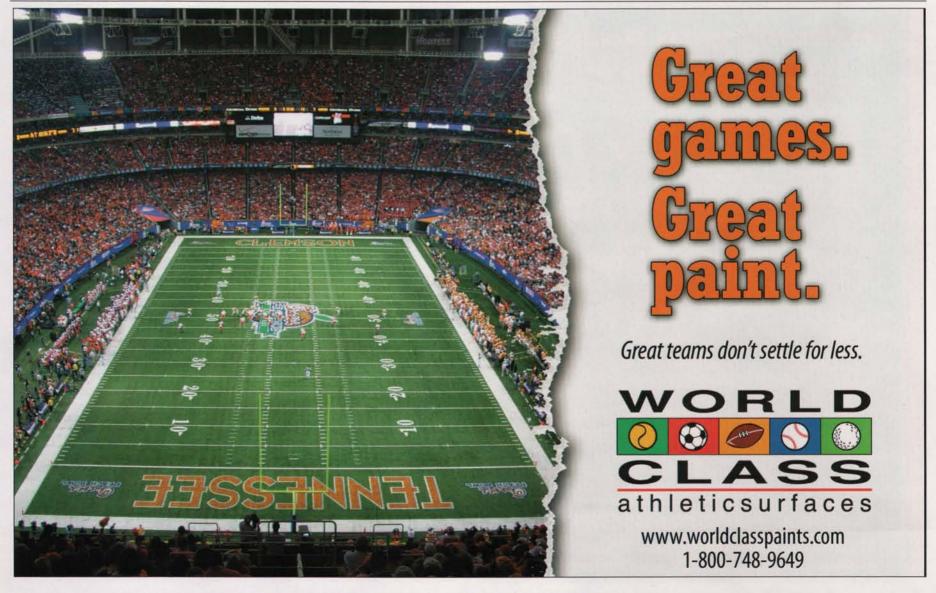
Michael Munie, MJM Services Construction, has worked on projects such as Kauffman Stadium and Arrowhead Stadium in Kansas City, Busch Stadium in St. Louis as well as Mizzou's football and soccer fields. He can be reached at MikeMJMServices1@aol.com or 618-234-7888.

Brad Fresenburg is a Turfgrass Specialist and Extension/Research Associate for the University of Missouri with extension, research, and teaching interests in sports



field construction and management. He provides sports turf consultation and training through his Sports Turf AdvanTage (STAT) extension program and website (http://agebb/missouri.edu/stat/).

Melissa Everitt is External Operations Associate for Missouri University. She thanks Mike and Brad for their contributions to this article, as well as: Mario Moccia, Sr. Associate Director of Athletics, Eric Morrison, Director of Development for Annual Giving, Bob Stanley, Assistant AD for Maintenance & Facilities, and Gene McArtor, Director of Special Projects.



Pitt reduces aggressive thatch

an Potchak, grounds supervisor at the University of Pittsburgh's Johnstown campus, was looking for solutions to his chronic thatch problems, drainage issues, and poor soil structure. Climate conditions in the mountains of western Pennsylvania and heavy schedules for a limited number of sports fields create

a doubly difficult problem for getting fields ready for play, especially in early spring. To make conditions more complex, the thatch was measured by Potchak to be as deep as 1 1/2 inches. Since the soil "clay based," it created drainage problems as

well. In the summer, the fields were drying out and "browning up." Potchak and his predecessors had tried aggressive fertilization programs and top-

dressing. More recently, Potchak had used core aeration and seeding technique with mixed results.

Searching for better results, Potchak started a deep-tining, slicing/spiking technique, cultivating the soil to a depth of 6 1/2 inches. He used a slicing aerator pulled by a tractor weighed down by sandbags to ensure the depth to "tear" up the turf. He was ready to try extreme measures to make these fields playable, especially for spring baseball.

Potchak decided give core aeration and "DryJecting" a chance. The DryJect machine can inject 10 tons per acre of dry materials while aerating. Following a blast

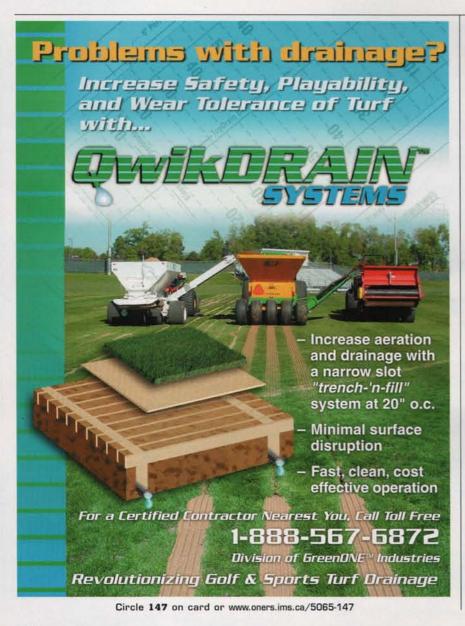
of water into the turf, the DryJect aerates three dimensionally, side to side, and front to back, and injects flowable dry amendments. In Potchak's case he injected Axis (diatomaceous earth) into the deep channels created by the machine. The entire process leaves the surface playable with minimal disruption.

In the first application, Potchak and Mike Nati, the local DryJect franchisee, used a 3 x 3-inch spacing to reduce thatch. The DryJect created channels of Axis about 4 inches deep. Following the DryJect process, when Potchak core aerated he could see that the cores were actual sod versus thatch cores as he had previously seen. Potchak's plan is to modify his soil structure targeting for 3-5% Axis composition.

The DryJect process helped get more water into the subsurface and improved field drainage. Potchak has also seen improved root depth beyond the depth of the core aeration process. By using Axis, Potchak created more infiltration, less compaction, and improved the overall cultural environment of the turf plant.

Even though Potchak admits that there is some thatch left, he says, "The DryJect process is more of a bargain that you can expect."

Gaul Advertising, Wayne, PA, provided this article. They can be reached at 610 225 0761.





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McLaughlin Boring Systems has introduced a new concept in tracking small diameter underground installations. The trackable, horizontal compaction bit can drill in most soils, and it can carry the company's probe transmitter.

The highly aggressive 1-3/4-inch bit forms clean, compacted holes, enabling larger service installations while the tracking probe takes the guess work out of following and locating the drill head once the bore is complete. Paired with the Verifier G2 digital locator it allows operators to find the head fast with minimal downtime.

McLaughlin Boring Systems/800-435-9340 For information, circle 059 or see http://www.oners.ims.ca/5065-059



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Distributing water up to 115 feet, further than any other gear-driven, commercial product available, the Rain Bird 115-E rotor features serviceable design, replaceable parts, and easy adjustment capabilities. The closed-case,

valve-in-head rotor is designed for larger irrigation systems with sizable spacing. The 115-E Rotor's radius throw from 85-115 ft. also means rotor heads can be placed around the playing field to minimize potential player contact. Standard rubber covers are provided to help ensure player safety.

Consistent water distribution is not sacrificed with the 115-E Rotor's ability to throw water an unmatched distance. Dual Spreader nozzle Rain Curtain technology ensures that the 115-E Rotor distributes water efficiently and uniformly over the entire length of the spray pattern, from the sprinkler head across the entire radius. Rain Bird/800-984-2255 For information, circle 060 or see http://www.oners.ims.ca/5065-060

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Landscaper maintains fields, uses loader on turf

BY TYLOR BOLAND

ompany founder and president Jeff Telgenhoff predicts a lush future for Pacific Landscape Inc. Based in Snohomish, WA, the 3-year-old company already has seen a sixfold growth in revenue over its first year. Telgenhoff has a goal of 20-25 percent growth per year.

What does he see as the engine for that kind of growth? Two things stand out: his company's increased focus on sports field maintenance and a piece of equipment to work on those fields.

"I was introduced to the ASV Posi-Track loader on a whim. It was recommended by our dealer to solve a problem we were having on a new 10-field complex for the North Snohomish Little League Association," says Telgenhoff. "The RC-50 we took for a demo worked wonders on that job, and the dealer never got it back. We sold our skid-steer literally the next day."

The problem Pacific Landscape had encountered is all too common for turf managers, especially in wet regions like the Pacific Northwest. "We were ready to

install infield mix to the fields once they'd been final graded. But because of constant moisture the fields were wet, so bringing the mix from its staging area to each field with a skid-steer would have been impossible. ASV's suspended track undercarriage and low ground pressure was the absolute ticket," he says.

Telgenhoff began his work in landscaping and turf management at a young age. His father owned a commercial greenhouse business, and he began his career mowing lawns when he was a kid. When he was 18 he started maintaining high-end private residences and would go on to graduate from Oregon State with a degree in horticulture. His company brought in \$1.1 million in 2004.

Sports field maintenance currently takes up 5-10 percent of the company's business, with the remainder going primarily to commercial landscaping. Telgenhoff, however, is planning to aggressively grow that percentage to 20-25 percent as part of his overall growth plan.

"Part of the difficulty is convincing potential clients without their own equipment, such as school districts, cityowned facilities and sports associations, that hiring professional help is both affordable and worth the investment," he says. "Already, we've realized substantial boosts in efficiency since purchasing our RC-50, and I've begun centering our marketing plan around that added value. "A perfect example," he continues, "was a soccer field someone had done drainage for when we were brought in to spread about 50 yards of sand. Before, our guys would have been wheelbarrowing or plywooding it out there. With the new machine we didn't even need to worry about driving over irrigation heads and were done in a fraction of the time."

Pacific Landscape has from the start relied on good people and good relationships to grow its business. Much of the workforce is made up of people he had worked with in the past and wanted to work with again. And he takes the same approach with outside relationships, partnering with Premier Field Development, a company that builds ball fields from the ground up.

"The founder of Premier Field Development is an old friend, and we've worked and will continue to work closely with him restoring and maintaining his natural grass projects," says Telgenhoff.

Tylor Borland is a writer with Carmichael Lynch Spong, Minneapolis. He can be reached at 612-375-8539.



TORO SUPPORTS THE STMA THROUGH MEMBERSHIP OFFER

Toro has a long-time relationship with STMA, providing various sponsorships and scholarships. "We are pleased to support the STMA," said John Caron, sports fields & grounds marketing manager at Toro. "Toro will award a one-year STMA membership to an entity with qualifying purchase in Toro commercial products between August 1, 2005 and December 31, 2005. In addition, Toro will award any entity with qualifying purchase a one-year STMA membership plus reimbursement for attending the 2006 STMA conference and exhibition in January 2006 in Orlando. For details, contact your local distributor."

"Through this partnership we will be able to introduce the value of STMA to new members," said Kim Heck, STMA CEO. "I am especially excited that The Toro Company has included a trip to the annual STMA conference and exhibition-our most important member event for education and networking."

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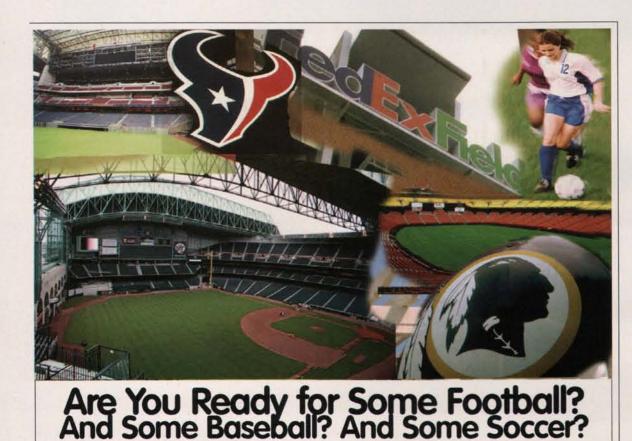


KUBOTA TRACTORS

The B2630 and B3030 are the most recent additions to Kubota's B Series line-up. A new feature is the first factoryinstalled cab available on the B3030. Kubota's durable four-

cylinder, liquid-cooled diesel engine has 23 PTO hp; the B2630 has a three-cylinder, liquid-cooled diesel engine that generates 19.5 PTO hp. Both are equipped with Kubota's exclusive hydrostatic transmission and come standard with hydraulic independent PTO, allowing you to engage or disengage both the mid- and rear-PTO without having to stop the tractor. The mid-PTO is offset to the side, making quick installation and removal of a mid-mount mower possible.

Kubota Tractor Corporation/888-458-2682, x900 For information, circle 062 or see http://www.oners.ims.ca/5065-062



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BLEC has a range of seeders; the Uni seeder is a self-propelled overseeder for work on fine turf areas. The Multi seeder is available in 36-96 in. wide models with optional twin spike rolls. Independent cast spikes make more than 1400 holes per sq. yd,. seed is metered over the full width, then in brushed to insure seed to soil contact. Multi Slit seeder is fitted with verticut rotor at 1 1/4 in. spacing. BLEC USA, Inc/864-225-3666 For information, circle 065 or see http://www.oners.ims.ca/5065-065

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