

# Missouri renovates outfield in winter

BY MELISSA EVERITT

**W**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 baseball 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 content soil, it took well to the root-

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.

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 transi-



The newly renovated Simmons Field outfield at Ralph & Debbie Taylor Phi Delta Theta Stadium, University of Missouri.

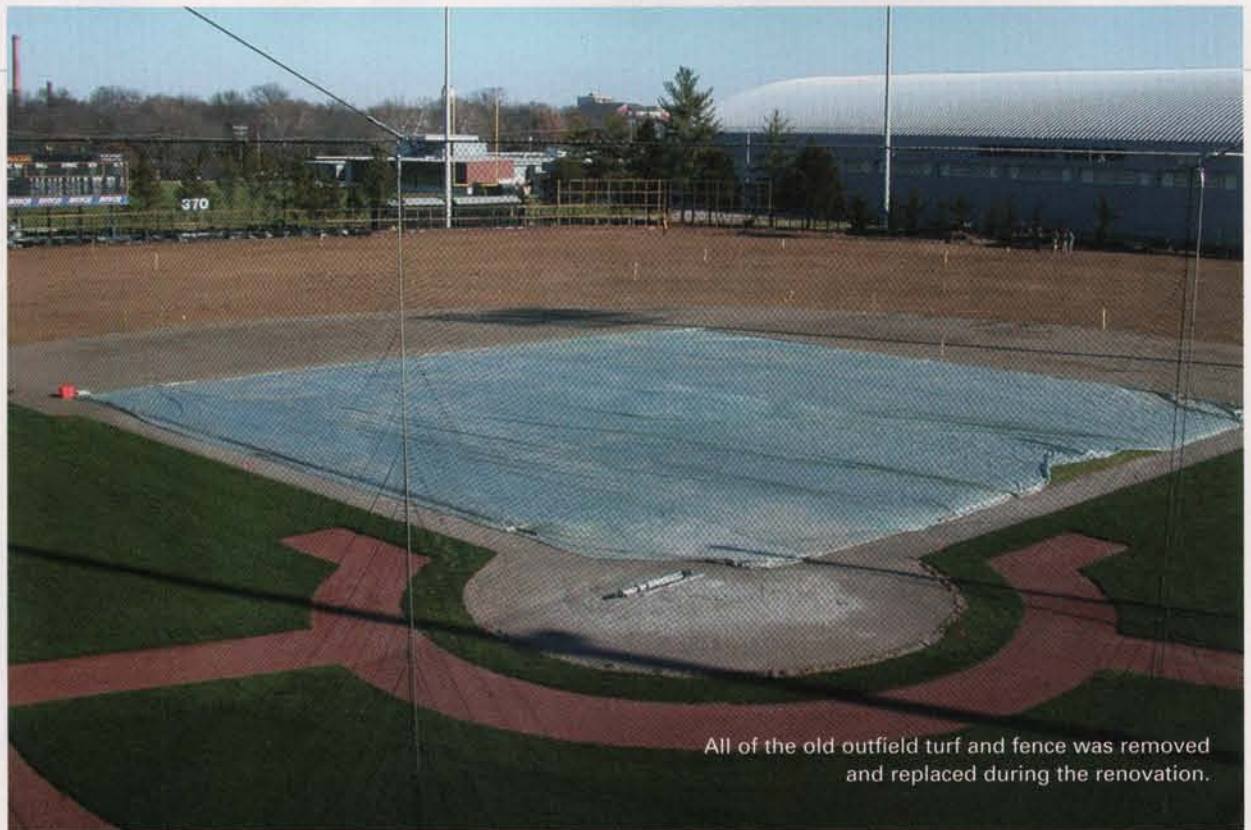
tion. C&C Construction, a local residential contractor, constructed the fence with materials donated by local businesses Boone County Lumber and Mid-City Lumber.

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.

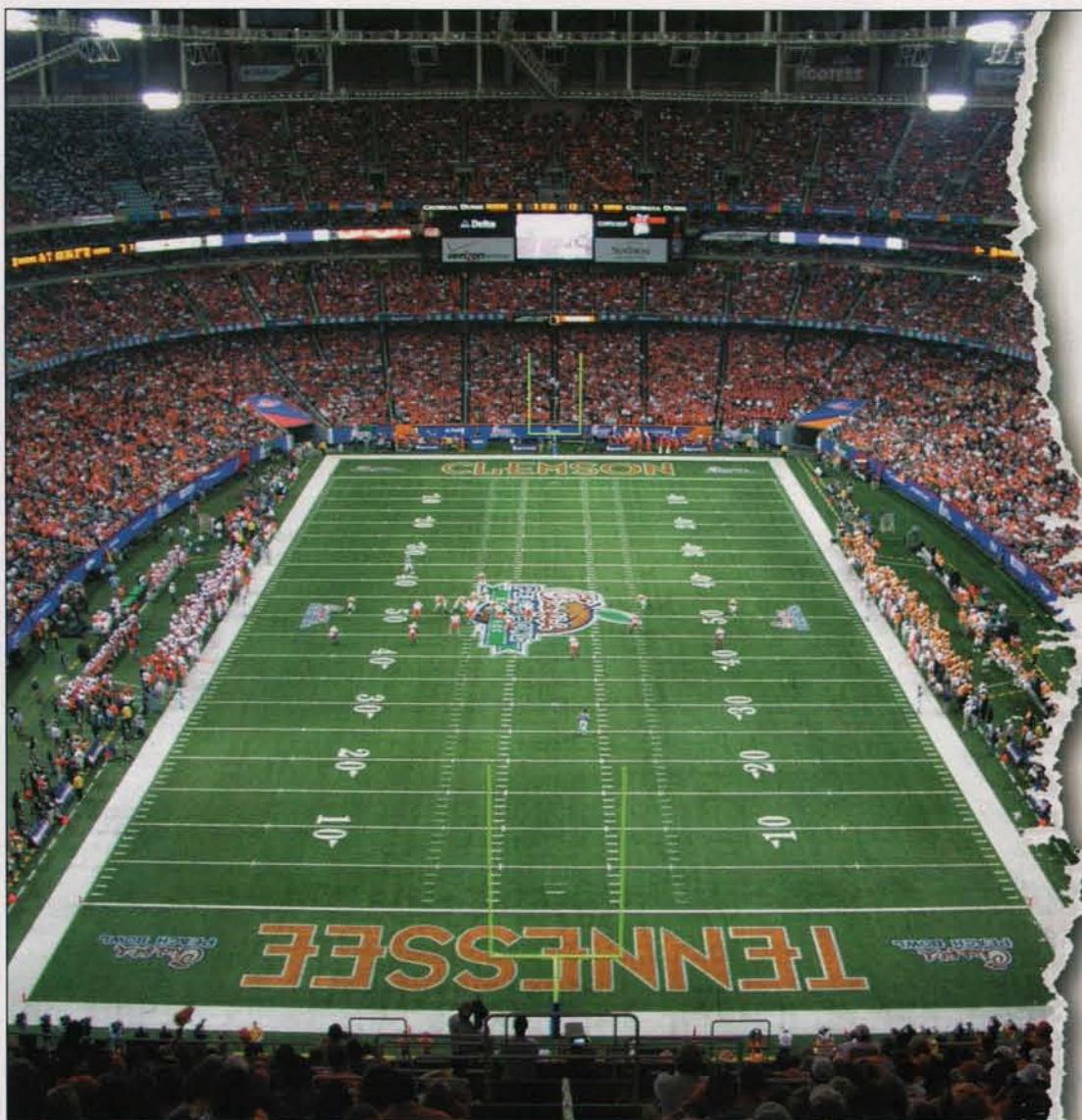
Brad Fresenburg is a Turfgrass Specialist and Extension/Research Associate for the University of Missouri with extension, research, and teaching interests in sports



All of the old outfield turf and fence was removed and replaced during the renovation.

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.*



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# Pitt reduces aggressive thatch

**D**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.

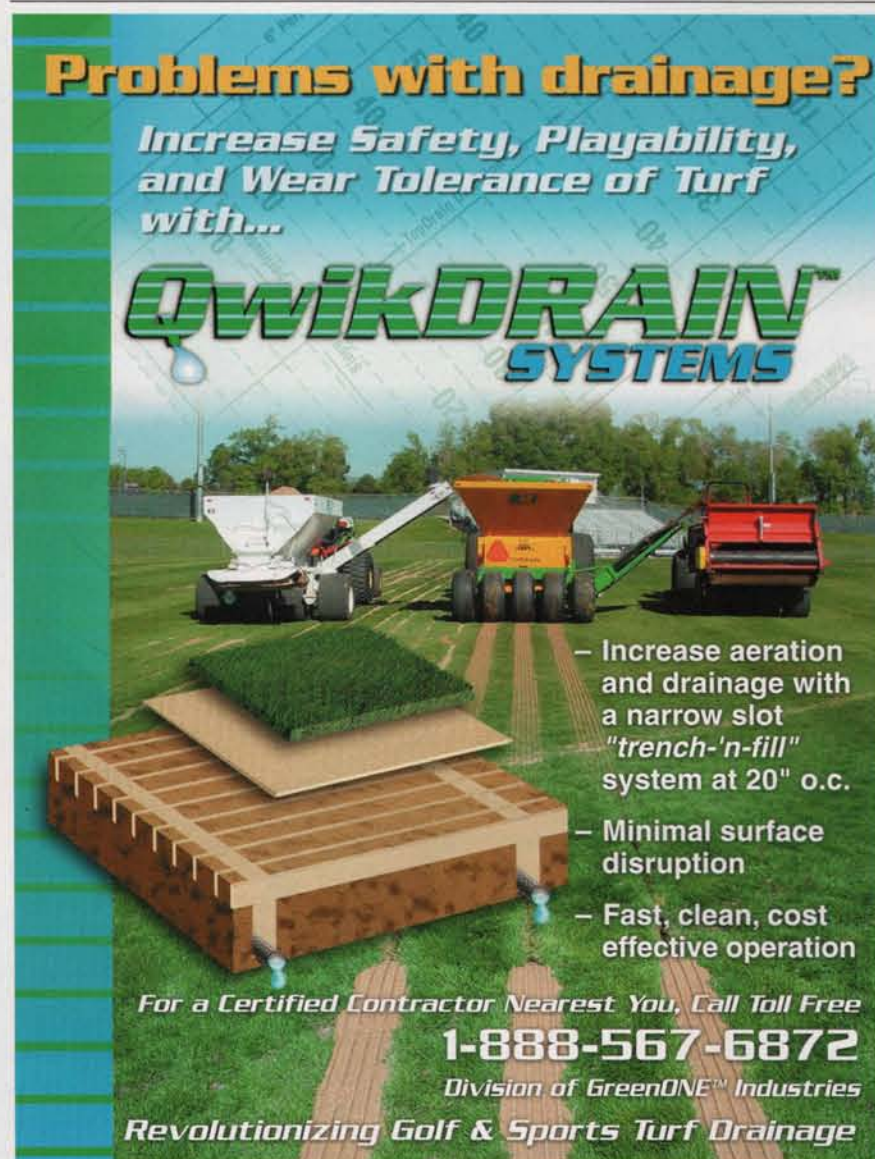
The DryJect process helped get more water into the subsurface and improved field drainage. Potchak has also seen improved root depth beyond the depth of the core aeration process. By using Axis, Potchak created more infiltration, less compaction, and improved the overall cultural environment of the turf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