

# Towson State Renovates Fields For Multi-Season Use



Towson State's practice field is fed periodically with slow-release Nitroform after aerification. The field is a combination of zoysiagrass and turf-type tall fescue.

By Fred V. Grau

**P**aul Thomas has given up trying to develop good sports turf at Towson State University in Maryland with the old standby, Kentucky bluegrass. He just couldn't bring it through the heat of the summer and have solid turf for football.

Instead, Grounds Supervisor Thomas combines warm season and cool season turfgrasses and backs them up with a sensible long-term program of aerifying, soil amendments, and fertilization.

With Kentucky bluegrass, Thomas had problems with crabgrass and goosegrass. The Kentucky bluegrass just couldn't compete. Hard-packed clay soil was another problem.

In June 1982, Thomas decided to make a radical change in plans. The stadium field was multiply aerified and treated with gypsum at two tons per acre. After dragging the field, Thomas broadcast common Arizona hulled bermudagrass seed at three pounds per 1,000 square feet into the Kentucky bluegrass.

Soon after the bermudagrass seed germinated, a pound of nitrogen from urea was applied to help it spread. In August, the field received four pounds of nitrogen from granular nitroform.

Turf cover was solid for the ten home games with little damage to the turf. But, everyone knew the bermuda would not survive a Maryland winter.





Grounds foreman Dave Taylor mowing practice field with Jacobsen F-10. Notice plugs from aerator.

Field (below) is aerated prior to fertilizing to help mix fertilizer into the rootzone.



The 1983 and 1984 program continued using Nitroform but Thomas overseeded with perennial ryegrass instead of common bermuda and irrigated judiciously. For two years, no one was injured on the field.

Recognizing the value of a warm season grass to take summer heat and resist weeds, Thomas considered other warm season grasses that would survive the winter. His attention turned to zoysiagrass.

With my urging and the technical guidance of USDA Turf Specialist Jack Murray, common Korean zoysia seed was

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Paul Thomas (right) works closely with his foreman Dave Taylor. Both Thomas and Taylor go to meetings with consultants.





Invading crabgrass was wiped out with DSMA, showing the field, once Kentucky bluegrass, was primarily crabgrass. Bare spot (inset) is filling in with zoysia runners. The zoysia competes better with weeds than its predecessor bluegrass during summer heat and use.

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soaked in a solution of potassium hydroxide to improve germination. A practice field was seeded at two pounds per 1,000 square feet in July 1984. All vegetation on the practice field was killed prior to seeding with an herbicide.

The DSMA used to kill the crabgrass wiped out the majority of the field. The Kentucky bluegrass just could not compete with the crabgrass in the Maryland summer heat so the field quickly became all crabgrass. Bemudagrass had no problem competing in the summer, but it could not survive the Maryland winter.

Two pounds of nitrogen from Nitroform went on soon after germination. No pre-emergence weed control treatment was made for crabgrass or goosegrass that year so they did compete with the zoysia at first.

One year later, the zoysia is winning its fight with the weeds. A blend of turf-type tall fescues was seeded into the zoysia this past summer and fertilized with three pounds of nitrogen from Nitroform.

Thomas has employed similar tactics on the soccer field where a close-cut smooth surface is essential. He believes the future for sports turf at Towson State College lies in the use of the aerifier, gyp-

sum, zoysiagrass mixed with tall fescue, Nitroform fertilizer (with P and K), minimal irrigation, and close mowing on a smooth field.

Thomas is considering switching the football stadium over to zoysia if the athletic department likes the look and play of the practice field.



*Editor's Note: Fred V. Grau is executive director of the Sports Turf Research and Education Committee of the Musser Foundation. He is a former director of the United State Golf Association Green Section and the developer of Penngift Crown Vetch.*