

Get your field 'back to grass'

Back to grass is the wave of the present, and the future for athletic fields.

By MIKE ANDRESEN

Jack Trice Field, the playing surface at Cyclone Stadium, and the home of the Iowa State University Cyclones, was converted from artificial turf to a sand-based natural grass surface prior to the 1996 football season. The new field earned the Sports Turf Managers Association's College Football Field of the Year Award for 1996-1997.

The ideal time to make the conversion decision is when the existing artificial turf surface is reaching the end of its effective life. For ISU, that point arrived in 1995,



Rootzone development is crucial to the durability of a turfgrass playing surface.



When Dan McCarney joined Iowa State University as head football coach, he knew he had to land more top prospects, a decision that weighed heavily in favor of natural turf.

the year Dan McCarney joined the University as Head Football Coach. In his meetings with Athletic Director Gene Smith and Associate Athletic Director Elve Everage, McCarney defined the priorities of his program. In order to strengthen the football program within the highly competitive Big 12 Conference, McCarney needed to recruit aggressively. Part of that package was assuring potential recruits that they would be playing on a high quality natural turf surface that was healthy for the body. This decision was supported by the ISU athletic trainers and the medical staff. ISU tied the field conversion into a total package with the construction of the Jacobsen Athletic Building, a facility which would bring the entire intercollegiate athletic program staff, including the coaches, into one building. The internal consensus definitely helped gain acceptance and support for the total project. Additional support was spurred by the presence of Heisman candidate, Troy Davis.

Maintenance higher but worth it

Commitment to excellence extends beyond the construction process. The conversion to natural turf is senseless without the commitment of resources to adequately maintain it. Obviously, maintenance costs are higher for "real" grass fields, since turf needs attention during, before and after the active growth period. Mowing and weekly painting alone would push maintenance costs higher. With artificial turf fields, surface cleaning is the major maintenance requirement.

It's vital that the proper equipment be available to achieve the quality control necessary for the natural turf grow-in and maintenance programs. The field conversion project budget allowed about \$100,000 for additional equipment.

Enduring first year stress

In 1996, we had four home games during the field's first six weeks. This put the field under stress entering the dormant season. Scrutiny over turf condition was in-

tense. The season-long question was, "Would the natural turf hinder Troy Davis' ability to achieve a thousand yards rushing?" It didn't.

Then there was the week of rain and the ISU-Nebraska game in yet more rain.

With Nebraska's then Head Football Coach Tom Osborne as one of artificial turf's strongest supporters, media across the nation were watching closely in anticipation of mud pit conditions. The field held up extremely well. Osborne had no complaints.

The winter of 1996 hit early and hard. We aerated, overseeded, topdressed with a half-inch of root zone mix, and covered the field, pounding stakes through a frozen layer of the sand.

Second year lessons

Spring of 1997 brought winter kill on the perennial ryegrass we'd used for late-season cover and on the sides of the field not covered with the tarp. We reestablished turf cover in those areas. This was a learning year. We fine-tuned everything, including our fertilization process, extending the first year's 10 day intervals to 14 to 21 days to match the needs of the more mature grass.

Early season home games were spaced out better, allowing for turf recovery, so we entered the dormant period with a good stand of grass.

In 1997, we core aerated the last week of November, scalped the grass before overseeding, topdressed with 1/2 inch of root zone mix and put on the field covers.

Dormant seeding in year 3

Following a mild 1997-1998 winter, an excellent field emerged in the spring, with the mid-field filled with immature grass. Dormant seeding has proved effective both years we've used it. We use a gold-tag seed blend of four bluegrass varieties that is high maintenance and high performance, can withstand low mowing and shows excellent ability to repair itself. Early soil

The process

1) Once the old artificial covering and underlying base were removed, a sub-surface drainage system was installed. This consisted of 4-inch perforated drain pipes placed in gravel-filled slits cut into the field's clay base on 15-foot centers in a her-ringbone pattern.

2) This was topped by 4-inch layer of gravel. The irrigation system was then installed at a 12-inch depth. Dr. Dave Minner and the project's consulting team developed precise specifications for the selection of

materials and monitored them closely throughout the construction process. The rootzone consists of a 12-inch layer of 93 percent sand and 7 percent peat.



3) Bluegrass sod with the same rootzone base was not available. The most workable match was sod grown on an 84 percent sand-base. This was cut thinly enough to avoid capping off the drainage capabilities of the underlying sand, yet thick enough to provide stability.

MA

samples showed roots at 7 and 8 inches. During 1998, we're doing tissue analysis every couple weeks and spoon feeding micronutrients accordingly.

We're aerifying and topdressing very lightly after each game to keep the bluegrasses thriving. We have always collected the cores to work out the soil layer that came in with the sod. As the field gets older, potential for black layer becomes more of a factor. We used deep tine aeration once in the spring of 1997. We'll use

it two or three times prior to the 1998 football season and once afterwards, basically to increase the gas exchange within the soil profile. □

Mike Andresen is Athletic Turf Manager for Iowa State University, Ames, Iowa. He joined the University in that position during the field conversion, just after the old surface had been removed. He's a past-president of the Iowa Chapter of STMA and serves as Chapter Relations Chair at the national level.