FIELD OF THE YEAR



Excellence Earns Northwestern University's Ryan Field STMA College/University Football Field of the Year Honors

by Steve and Suz Trusty



Results of the \$30 million stadium renovation project, completed in 1997, were made even better with the field work completed in 1999.

ommitment to excellence earned the STMA 2000 College/University Football Field of the Year honors for Ryan Field of Northwestern University. The University, located in Evanston, IL, completed a \$30-million stadium renovation project in the fall of 1997. Renovation to the stadium included new seating and an enclosed threetier press box on the stadium's west side, complete with Stadium Club Suites. A new end zone facility was constructed to house the football locker room, sports medicine room, and equipment room. Key to the project was replacing the existing artificial turf with a sand-based, natural turf field.

Eric Adkins, CSFM, joined the University as Agronomist in September 1997. He says, "Football has long been a highlight of the Northwestern athletic program. The old stadium, built in 1926, was named for William A. Dyche, former vice president and business manager of the University. In 1905, he had directed construction of the original wooden stands that had a seating capacity of 10,000. By the early 1920s, football popularity had outgrown the wooden stands and Dyche spearheaded the planning of a 45,000-seat stadium. In 1949, the stadium was enlarged by enclosing the south end, which increased the seating capacity to 49,256. The 1997 stadium renovation continued the University's commitment to excellence in athletics.

"The renovated facility was renamed Ryan Field. To enhance the beauty of the stadium, 900 purple and





white mums are planted each year at the north end of Ryan Field. We strive to have these in full bloom for the annual Homecoming game. This all combines to gain the field its recent nickname of "The Wrigley Field of College Football," says Adkins.

Adkins reports a unique feature of the field conversion was lowering the field level by 6 feet when the existing artificial turf field and running track materials were removed. The field installation began in April 1997. Turf Grids were incorporated into the 16inch sand-based soil profile. This was placed over the subsurface gravity drainage system that is in a herringbone pattern on 15-foot centers. A sideline drainage system was installed to handle excess water from the stands. Both systems are channeled into the storm sewer system.

Grass berms were added on three sides of the field to soften the transition from the playing field to the seating areas. The sideline bench areas were developed using a section of asphalt covered with artificial turf. This extends from the 25-yard line to the 25yard line and right up to the 6-foot border. Adkins notes this addition has been a tremendous laborsaving device.

Irrigation zones

The irrigation system has 11 zones and the capacity to operate four of the zones at the same time. Zones 1 through 7 are on the field, starting with zone 1 at the end zone, zone 2 at the 17-yard line, 3 at the 35, 4 at the 50, 5 at the opposite 35, 6 at the 17, and 7 at the end zone. Zones 8 to 11 are on the sidelines, with one covering the perimeter goal post to the 50yard line and one the 50-yard line to the opposite goal on each side of the field.

Adkins says, "Ryan Field underwent a partial renovation in 1999. Tests showed the sand particles were too spherical to provide the stability and footing we wanted to achieve. After numerous tests, we determined the best approach was to amend the existing profile with a combination of Profile soil amendment and a more angular sand within the same USGA size specification as the original.

"We had the old sod stripped off and removed. We flagged the irrigation heads and placed drain tile around them for protection. Then 15 truck loads of the angular sand and 88 tons of Profile were spread over the field surface and tilled in to a depth of 6 inches. This thoroughly incorporated the new material into the original soil profile and Turf Grids, resulting in a soil profile for the top 6 inches of the field of 80 percent sand, 15 percent Profile and 5 percent Dakota Reed Sedge Peat. This combination was retested and approved.

"The field was then laser graded and the 1 percent slope re-established by Van's Enterprises, Ltd. Dr. Dave Minner of Iowa State University (see "Q&A, p. 46) served



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Northwestern University Ryan Field Maintenance Program

FERTILIZATION: (Adjusted

according to soil test results and turf performance)

April:

Second Week: Micronutrient combination.

Third Week: (Following Spring Game) Organic Product 10-2-8 at 1 lb. of N per thousand sq. ft. and 20 bags of Gypsum.

A Week later: 0-0-58 at 2 lbs. of K per thousand sq. ft.

May:

Second Week: Root growth hormone.

Mid-month: Organic Product 10-2-8 at 3/4 lb. of N per thousand sq. ft. **June:**

First week: Slow release 12-2-6 at ? pound of N per thousand sq. ft. Second week: Root growth hormone.

Last week: Organic Product 10-2-8 at 1 pound of N per thousand sq. ft. And 3-3-3 Dry Roots at 5 lbs. per thousand sq. ft.

July:

Second week: Root growth hormone.

Third week: 3-3-3 Dry Roots at 5 lbs. per thousand sq. ft.

August:

First week: Faster release product 21-0-22 at 1 lb. of N per thousand sq. ft.

And 0-0-58 at 2 lbs. of K per thousand sq. ft.

Second week: Root growth hormone.

Third week: 3-3-3 Dry Roots at 5 lbs. per thousand sq. ft.

September:

First week: Faster release product 21-0-22 at 1 lb. of N per thousand sq. ft. Second week: Root growth hormone.

Third week: Faster release product 21-0-22 at 1 lb. of N per thousand sq. ft.

Fourth week: Root growth hormone

And 3-3-3 Dry Roots at 5 lbs. per thousand sq. ft.

October:

First week: Faster release product 21-0-22 at 1 lb. of N per thousand sq. ft.

November:

First week: Faster release product 21-0-22 at 1 lb. of N per thousand sq. ft.

MOWING:

Frequency: Three to five times per week.

Height of Cut: 1-7/8-in., consistent height maintained throughout growing season.

AERATION:

Third week in April: Core aerate on 2 X 2 spacing. Remove cores, overseed with 200 lbs. of bluegrass blend and topdress with 1/8 to ?-in. of soil profile material.

Third week in May: Core aerate on 2 X 2 spacing. Remove cores and topdress with 1/8 to ?-in. of soil profile material.

Third week in June: Core aerate on 2 X 2 spacing. Remove cores and topdress with 1/8 to ?-in. of soil profile material.

Third week in November: Core aerate on 2 X 2 spacing. Remove cores, overseed with bluegrass blend and topdress with 1/8 to ?-in. of soil profile material.

SLICING:

Second week of July, August and September: Slice in two directions.

OVERSEEDING:

April and November: Overseed in combination with core aeration and topdressing.

Second week of September, Second and Third weeks of October and First week of November: Overseed with bluegrass blend between games.

IRRIGATION:

Irrigation on an as needed basis based on evapotranspiration rates. Try to dry field down before games to reduce compaction. Will stop irrigation on Wednesday or Thursday for a Saturday game.

TARPING:

Before spring game, generally from March 15 to April 15. Tarp removed for mowing and pre-game painting. Field covered in case of pre-game rain.

PEST CONTROL:

Weed control: None needed. Disease control: IPM practices followed. Preventive controls applied for brown patch in the summer as conditions warrant precautions, for pythium before graduation ceremonies, at other times if conditions warrant precautions. Insect control: None needed.

PAINTING: Painting for game day as our consultant on this project and he helped us locate the bluegrass sod. It was a Scott's blend of Abbey, Covington, Nottingham, and Ascot grown on a sandy soil by Newman's Sod Farm of Iowa City. They delivered and installed the sod."

Adkins coordinated the project, making the purchases, setting the target dates and overseeing the onsite details. Ever conscience of the time factor, he had an installation completion goal of April 30. Even with a few weather delays the sod was down on May 12, just a few days behind his projections.

Adkins adds, "Dave Minner had recommended we specify that the sod fertilization be restricted so the turf wouldn't be 'over-pumped' when it arrived. This gave me a hungry sod that was very responsive to an aggressive fertilization program. In effect, during the grow in, I could do the pushing to make the turf better instead of trying to bring a lush turf back up to that level after the shock of the sodding process. This produced



From left to right: Rich Moffit, STMA President; Eric Adkins, CSFM, Agronomist; Randy Stoneberg, Maintenance Forman

a stronger field. The turf stood up well to graduation on June 18 and was responding like an established field by our first football game in September."

Field performance has been excellent following the '99 renovation according to Adkins. He notes, "I was working with the softball and baseball fields during the 2001 spring football game, but walked the field after the game and there was no damage and no divots. Prior to this renovation, we were putting down 2,000 to 3,000







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While Ryan Field is painted only for games, the athletic field staff strives to keep the turf game-ready throughout the growing season as an incentive to attract prime athletes to the university.

pounds of perennial ryegrass each year to keep turf cover on the field. In 1999 and 2000, we needed only 50 to 100 pounds of our bluegrass blend between games. We also overseeded with it in the spring before putting our grow cover down.

"The top 6 inches of the soil profile drain at between 10 and 14 inches per hour. The bottom 10 inches probably drain at 3 to 4 inches per hour. That means we're holding water at the 6-inch level where it's accessible to the turf roots. We did complete a drill and fill procedure down the middle of the field this May. We drilled to a 12-inch depth and filled with Profile. This will open up deep aeration and water percolation channels in the most heavily used section of the field. The only addition to the field we're making in 2001 is the installation of new goal posts donated by a local company."

Ryan Field is just one of Northwestern University's nine natural turf fields. The two football practice fields, one baseball and one softball field, a soccer field, a field hockey field and two six-acre multiple use fields total 25 acres of athletic turf and facilities. These are used as practice fields, and for camps, for intramurals and for Club sports in lacrosse, rugby, cricket, soccer, softball, baseball, and football. These eight fields are always in use from late March or early April through November or December, when weather permits. There's also an artificial turf field hockey field and an artificial turf indoor practice facility. The football team generally uses the indoor facility for one day's practice before playing an away game on an artificial turf field.

Ryan Field hosts six football home games in the fall, the intra-squad football game the third week of April and graduation ceremonies in mid-June. The football team uses the practice fields for all their practice sessions. The band does not practice on the game field.

Adkins says, "Though play and events on Ryan Field are limited and closely controlled, we strive to keep it in excellent condition at all times. The overall turf quality provides the best possible playing surface for the athletes. The aesthetics enhance the experience of a college football Saturday. The stadium also is used as a major recruiting mechanism for all sports, not only football. We never know when that star recruit may walk into the stadium and see the field for the first time, so we always strive to make a good first impression."

That involves some detailed manipulation. For example, before

the 2001 graduation ceremonies, irrigation was limited for several days to dry down the field and make it less susceptible to compaction. A preventive fungicide application was made to ward off pythium. The field was covered with terraplas from 15-yard line to 15-yard line and to the opposite hash mark. The stage and on-field chairs were put in place.

A busy man

Graduation was completed by 8:00 p.m. By 2:00 am the next day, the stage and chairs had been removed and the field was uncovered.

The multi-field University setting was a change for Adkins, but obviously one he has handled very well. From August 1994 until September 1997, he had served as Assistant Groundskeeper at Chicago's Soldier Field. There was just one field to focus on, but it served triple duty for football, soccer, and concerts. Before that he served as Assistant Director of Golf for the Chicago Park District, overseeing the maintenance of six golf courses and two driving ranges. He's a graduate of Michigan State University's 2-year Turfgrass Management Program and achieved Certified Sports Field Manager status February 1, 2000.

With nine fields and 20 coaches' practice schedules to accommodate. there's seldom any downtime. Adkins says, "My direct supervisor, Assistant Athletic Director of Facilities Jack Freeman, really understands the needs of the athletic field program and is very supportive of it. Foreman Maintenance Randy Stoneberg, and Groundskeepers Rich Thorn and Joe Berube do a great job. I think they're the best. They work with a seasonal staff of four and add six or seven student workers during June, July, and August. I develop the maintenance program and do the scheduling; they handle all the mowing, fertilization, and spraving. It's their dedication to excellence that earned Rvan Field STMA Field of the Year honors."

