

*Will Schnell's scientific approach to field care earned Thomas J. Dodd Memorial Stadium, home of the Norwich Navigators, the Eastern League Double-A affiliate of the New York Yankees, the 1996-1997 Beam Clay Professional Baseball Diamond of the Year Award.*



Neal Pate supplies finishing touches for the well-manicured infield. Photos courtesy: Will Schnell.

*Schnell Navigates Dodd Stadium to*

## Pro Diamond of the Year

By Bob Tracinski

Construction of this Norwich, Conn., facility was completed in March of 1995. Schnell came on board two months prior to that date as stadium superintendent/head groundskeeper.

He says, "All the sod was down and they were wrapping up the final work on the mounds and warning track. I had less than a month to select, purchase and take delivery of equipment, which was a major challenge itself. While Dodd Stadium is leased to the Norwich Navigators, the facility is owned by the city of Norwich and operated by the Stadium Authority. As a new entity, the Stadium Authority had no established lines of credit or credit history, and wouldn't be generating revenue for several months. Suppliers did need 'a little' convincing to set up accounts."

Schnell's previous connections in the industry helped with that convincing. After earning a degree in agricultural plant pathology with a minor in management from Central Missouri

State University, he worked at the university for two years and took graduate classes. He then worked for the Harrisburg Senators, the Double-A affiliate of the Montreal Expos, before moving on to the Cleveland Browns.

### A Good Design

Schnell points out that Dodd Stadium's sand-based field was well designed and constructed. The drainage system consists of four-inch laterals on 20-foot centers, with a 16-inch main drain line. A four-inch crushed gravel blanket sits below a nine-inch growing medium of 90 percent sand and 10 percent North Dakota Peat.

Schnell says, "Like the turf, the infield is built for drainage. The profile consists of four inches of gravel, four inches of processed sand and five inches of a sandy loam infield mix. This has all been incorporated with a soil conditioner and red brick dust.

"HOK of Kansas City handled the design and construction. Chuck Dixon of Turf Diagnostics and Design,

Olathe, Kans., verified that each component of each media load matched specifications."

The sod was specifically grown locally in sandy soils with three varieties of Kentucky bluegrass. Schnell has overseeded the original sod with superior bluegrasses — Princeton, Midnight, SR2000 and Eclipse — and two endophyte perennial ryegrasses.

The turf area irrigation system has 12 separate zones, S2001, 300 series heads, an auxiliary booster pump and a remote control unit for on-field watering. The skinned area is also irrigated using eight I-42 Hunter heads fed by a three-inch main line, providing optimum coverage in a short time. According to Schnell, 40 seconds of running the system results in the same moisture content as that achieved in 10 minutes with a hand held hose. Still, for that edge of perfection, they do hand irrigate prior to games.

Schnell says, "In order to keep the skinned area profile firm, rolling is as important as nail dragging. We concen-



From left to right, Neal Pate and Will Schnell drag hose while Kevin Johns sprays the infield.

trate on nail dragging the top three inches to keep the soil conditioner, brick dust and sandy loam material loose and well blended.

"Floatboarding is performed in varying directions to maintain a level playing surface. A screen drag is then utilized to remove any foreign or over-size material. This is repeated in varying directions until a satisfactory firm surface is achieved. A quick rolling typically is followed with a repeat dragging. Water is applied to the infield throughout the day until the necessary moisture content is achieved."

Beam Clay Pitchers Mound Mix is used both on the pitcher's mound and home plate. Schnell says, "These areas are covered with red brick dust to match the infield color. When these areas are not in use, we cover them with AstroTurf and tarps to help maintain optimum moisture content. The mounds and home plate are worked every day after games. This consists of both hand and pan tamping, which helps maintain the proper shape and height."

A SubAir system was added in the fall of 1996. It connects to the main drain line. Schnell says, "This system can completely exchange the gases in the rootzone pore space with air in approximately 15 minutes. In the vacuum mode, the system has doubled or tripled our gravity percolation rate across the field. We've even observed an increase in percolation rate in the heavier infield dirt. We hope that this

will minimize tarping in all but the most extreme conditions."

"In the pressure mode, the system allows us to moderate excessively warm or cool soil temperatures. We're currently able to manipulate soil temperatures by 8 to 12 degrees. We'll be adding a heat exchange unit in mid-March and plan to bring soil temperatures to the 65 to 70 degree range and keep them there during the early spring. The turf should be in prime shape for our April opener."

According to Schnell, the SubAir system also can extract any toxic levels of gases such as carbon dioxide, methane and hydrogen sulfide and replace them with air without the surface damage that typically results from conventional aeration with tining machines.

### Maintenance

Schnell begins the field maintenance program in March with tissue, soil and soil-gas testing — which serves as the basis for the pre-season maintenance activities.

Dr. David W. York, of Tournament Turf Laboratories Inc., Valencia, Pa., conducts the tissue testing every two weeks and the soil testing every four weeks.

Soil-gas testing is conducted every two weeks by David Potts of SubAir Analytical Services, Deep River, Conn. Schnell says, "Soil gas is analyzed by pumping a soil-gas sample directly from the rootzone pore space via a sub-surface probe. The gas sample is then analyzed with an infra-red analyzer for concentration of oxygen, carbon dioxide, methane and hydrogen sulfide. When oxygen drops below 20 percent and/or toxic gases are detected above 0.5 percent, the SubAir system is run."

Keeping that scientific approach always in the forefront, Schnell tracks

*continued on page 10*



A large crowd was on hand for Opening Day at Dodd Stadium.

**Pro Diamond**

*continued from page 9*

turf progress through these detailed test records and bases all inputs on precise needs. He constantly adjusts the fertility program according to current data, making a liquid application every seven to ten days, augmented by a slower release granular application every three to four weeks.

He monitors the plant, soil-nutrient levels, soil-moisture content, soil temperature and soil-gas concentrations for a clear picture of the turf-grass growth environment.

Schnell says, "The SubAir 200 horsepower blower moves air at rates of 20,000 cubic feet per minute. With it, we have the ability to control any of these variables, ultimately resulting in a healthier plant. So, while we can't control the sunlight, we can pull its heat into the soil profile by running the vacuum briefly during the warmest part of the day. We can also pull the dew from the skinned area surface. We can inject cool water through the 16-inch main drain line to lower soil temperatures."

Hollow tine aeration and core removal are conducted both late in the

spring and early in the fall. Solid tining takes place once a month during the growing season. Wear and high traffic areas are tined before and after each home game. Pregerminated perennial ryegrass and a 90-10 top-dressing mix of material that precisely matches the soil profile is then spread and dragged in.

In early September, the field receives verti-slice seeding with the four premium varieties of bluegrasses. Deep aeration with nine-inch solid tines is followed by rolling to insure a level finish.

The turf is mowed to 15/16 inch every day during home stands; every other day when the team is on the road. The outfield is cut with a reel gang mower and the infield with a 26-inch walk-behind greens mower. Schnell says, "We change mowing patterns for each homestand. This not only prevents wear and compaction and increases aesthetic appeal, it also gives crews the opportunity to showcase their creativity."

Turf edges are cleaned with leaf rakes after every game and washed with a one-inch water hose after each home stand to keep a smooth

interface. Crews also ensure that the edges remain straight and clearly defined through weekly maintenance with a string line and power edger.

Schnell says, "Field maintenance at optimum levels is complex. The secret is to surround yourself with the best people possible and don't be afraid to ask questions of anyone."

**A Crew of the Best**

His personal team of "best people" includes Vince Patterozzi, his former boss at the Cleveland Browns, whose "unofficial" seminars on turf care were so inspiring that Schnell says, "We were ready to grow grass on the moon." He gives similar accolades on skinned-area care to Murray Cook, who he worked with at the facility of the Harrisburg Senators. Schnell says, "I'm so grateful for both of these guys. They have a wealth of knowledge and are so willing to share it."

Then there's the Dodd Stadium resource team: Dixon for soils, York for plant tissue analysis, and Potts for gas analysis.

Schnell is quick to call attention to another top team — his staff. Within

*continued on page 13*

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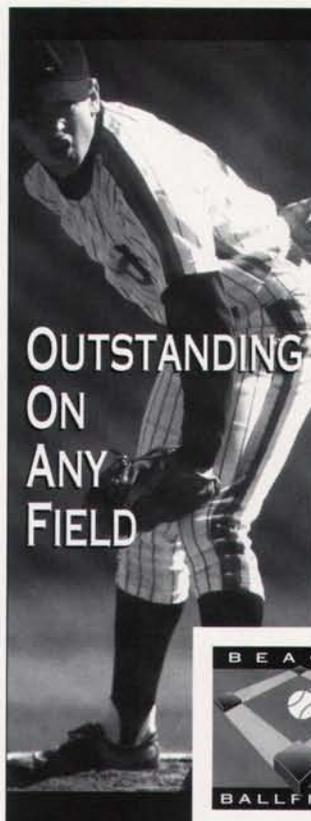


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**Pro Diamond***continued from page 10*

two weeks of arriving at Dodd Stadium, he hired Chris Powell for the assistant groundskeeper and stadium maintenance position. Soon Rick Izzo also joined the full-time staff. Both of these men had worked with Schnell for Vince Patterozzi at the Cleveland Browns. When, after the first year, Powell moved on to a position with the Kansas City Chiefs, Neal Pate, who had been an intern with the Browns when he was a student at the University of Missouri, moved into the assistant groundskeeper position. Pate has since taken a position with The Disney World Sports Complex in Florida and Izzo has moved back to Cleveland.

Kevin Johns now has head stadium-maintenance responsibilities. Tim Clapp is a seasonal full-time employee who is also taking turf classes, and Tim O'Connor, from the University of Massachusetts, is the seasonal intern.

The part-time crew rotates assignments, with two people coming in at 5 p.m. on game days to work through the end of the game. This crew includes: Tim McClaughlin, Pete Slocum, Pat Coleman, Ron Johnson, Bill Slocum, Brad Comeau, Mike Balsler, Frank Campbell, Ken Daniewicz, Tom Montgomery, and Zach Schnit.

Schnell praises the ability of this crew to keep the field in top condition for the packed schedule. In 1996, that included 93 games — 71 AA, 12 Big East and 10 high profile games for local teams. Added to this were three concerts — the Beach Boys, Sawyer Brown and Kids Jam — an "Octoberfest" celebration held in the stadium concourse and on the field, and the Sports Turf Managers Association of New England's hands-on field day.

"Although the field is our number one priority, my staff also is responsible for the upkeep and maintenance of a 7,000 capacity stadium, its 18 luxury skyboxes, a 2,500-space parking lot and the remaining 25 acres of this complex," says Schnell.

"Both the team and the city believe it's important to host extra events to promote the facility and enhance community good will. Communication between my staff, the coaches, players and front-office staff is essential."

Schnell adds, "Continuing employee

education, internships from local university turf programs and a genuine commitment to a scientific approach to field maintenance have helped us to maximize use and minimize damage to our field. A professional quality surface promotes player development and provides an ideal arena to showcase up-and-coming talent for the World Champion New York Yankees."

As the Beam Clay Award confirms, the field and Will Schnell's program are also a terrific "training ground" for sports turf managers. □

*Bob Tracinski is the manager of public relations for the John Deere Company in Raleigh, N.C., and public relations co-chair for the national Sports Turf Managers Association.*

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This year's judges were (AL-EAST) Joe Mooney, Boston Red Sox; (AL-WEST) Tom Burns, Texas Rangers; (NL-CENTRAL) Barry Foley, Pittsburgh Pirates; (NL-CENTRAL) Steve Peeler, St. Louis Cardinals.

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