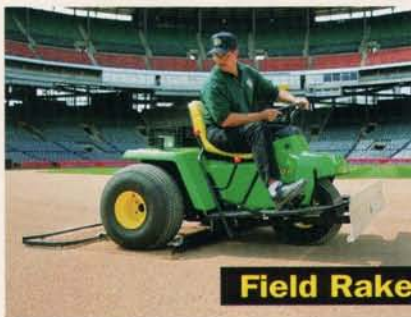


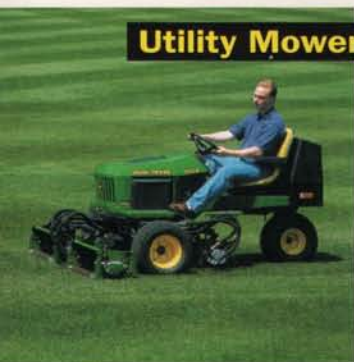
Great Range



In The Field



Field Rakes

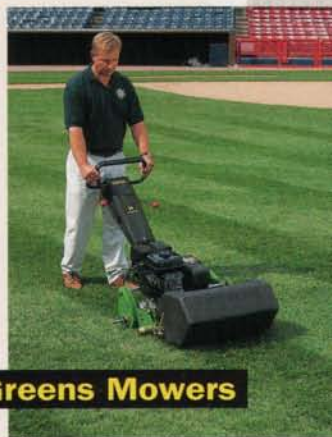


Utility Mowers

From municipalities to the major leagues—ballfield managers everywhere are depending on John Deere equipment to help make their diamonds shine. Because only John Deere delivers a full range of tools like these.

Start with the versatile 1200A Bunker and Field Rake. Its power, and ability to simultaneously work with a front-, mid-, and rear-mounted implement, makes it quick and productive. John Deere cutting units deliver strength and superior quality of cut for the 2653 Gas and 2653A Diesel Utility Mowers while infield striping is enhanced with the straight-tracking 220A Walking Greens Mower.

Add the Aercore Aerators, Gator® Utility Vehicles, 1800 Sprayer, and a full line of gear and hydrostatic-drive utility tractors and you begin to see why John Deere is the only name you need on your lineup card. For the name of your nearest distributor, or free literature, call 800-537-8233. Or write John Deere, P.O. Box 12217, RTP, NC 27709-9601.



Greens Mowers



NOTHING RUNS LIKE A DEERE®



Utility Vehicles



Aerators

Circle 101 on Postage Free Card

sportsTURF

PROGRAM



THE OFFICIAL PUBLICATION OF THE
SPORTS TURF MANAGERS ASSOCIATION

STMA OFFICERS

PRESIDENT **MIKE SCHILLER**
PAST PRESIDENT **GREG PETRY**
PRESIDENT-ELECT **STEPHEN GUISE**
COMMERCIAL VICE PRESIDENT **HENRY INDYK, PH.D.**
SECRETARY **EUGENE MAYER**
TREASURER **RICH MOFFITT**
STMA BOARD MEMBERS **L. MURRAY COOK,**
BUCKY TROTTER, MARY OWEN, BOB PATT, BOB CURRY
EXECUTIVE DIRECTOR **STEVE TRUSTY**

STMA OFFICE

1375 ROLLING HILLS LOOP, COUNCIL BLUFFS, IA 51503
PHONE: (800) 323-3875
E-MAIL: TrustyTips@aol.com
WEB SITE: <http://www.aip.com/STMA>

MAGAZINE STAFF

VICE PRESIDENT GROUP PUBLISHER **COLLEEN LONG**
EDITOR **JIM WILLIAMS**
EQUIPMENT EDITOR **DANIEL INGHAM**
PRODUCTS/NEWS EDITOR **JAMES ALDERSON**
EDITORIAL DIRECTOR **JERRY ROCHE**
ACCOUNT EXECUTIVE **DEANNA MORGAN**
INTERNET MARKETING SERVICES **GRETCHEN WAGNER**
NATIONAL ACCOUNT SALES **LIZ RICHARDS**
PRODUCTION MANAGER **SUSANNE K. NOBLE**
PRINT PRODUCTION COORDINATOR **LARRY HOLMES**
MANAGER, WEB PRODUCTION **DEBORAH A. BELLE**
ELECTRONIC IMPOSITION **CATHY CLAPPER**
LIST RENTAL **GLEN GUDINO** PH: (847) 427-2083
FAX: (847) 427-2006

CIRCULATION MANAGER **ROB HARKEY**

SUBSCRIPTION SERVICES CALL (609) 786-6805

ADVERTISING AND EDITORIAL OFFICES

68-860 PEREZ RD., SUITE J, CATHEDRAL CITY, CA 92234
(619) 770-4370; Fax (619) 770-8019



ADAMS TRADE PRESS, Inc.

PRESIDENT **MARK ADAMS**
VICE PRESIDENT/OPERATIONS **PEGGY BILOUS**
CHIEF FINANCIAL OFFICER **G. PATRICK O'DOWD**
DIRECTOR OF HUMAN RESOURCES **MARGIE DAVIS**
DIRECTOR/WEB DEVELOPMENT **ROB SKLENAR**
DIRECTOR/MIS **SUZANNE DELAHANTY**

sportsTURF Magazine (ISSN 1061-687X) is published monthly by Adams/Green Industry Publishing, Inc. 68-860 Perez Rd., Ste. J, Cathedral City CA 92234. Material in this publication may not be reproduced or photocopied in any form without the written permission of the publisher.

Copyright © 1997. Member of the
Business Publications Audit of Circulation, Inc.



SUBSCRIPTION RATES

ONE YEAR \$40 TWO YEARS \$65

FOREIGN (ONE YEAR) \$65 + \$130 Airmail or Single Copy \$6

SEND PAYMENTS IN ADVANCE to: sportsTURF, 2101 S. Arlington Heights Road, Ste. 150, Arlington Heights IL 60005-4142.

CHANGE OF ADDRESS

Apply old mailing label to subscription card, answer all questions and mail or fax to 609/786-4415. Allow 6-8 weeks for change. Send correspondence regarding subscription service to: sportsTURF, P.O. Box 10515, Riverton, NJ 08076-0515.

PERIODICALS POSTAGE paid at Cathedral City, CA and at additional mailing offices.

POSTMASTER: Please send change of address to sportsTURF, P.O. Box 10515, Riverton, NJ 08076-0515.

VOLUME THIRTEEN, NUMBER THREE

MARCH 1997

MAIN EVENTS

8 Schnell Navigates Dodd Stadium to Pro Diamond of the Year

Thomas J. Dodd Memorial Stadium, home of the Norwich Navigators, came away this year with the 1996-1997 Beam Clay Professional Baseball Diamond of the Year Award. Much of the credit goes to Will Schnell and his scientific approach to field care.

14 Spring Training for Your Baseball Diamond

If you manage a baseball diamond, news coming from the training camps these days serves as a kind of seasonal wake-up call. If you haven't given your diamond any attention since last fall, it's time to get started.

20 Spring Seeding

With the advent of spring, turf managers often find areas where the grass is thin or even non-existent. Eugene Mayer offers tips on how to correct the situation through proper seeding.

24 Infield Grooming

Dave Ashman outlines the fundamentals of skinned-area care. Completing these procedures will keep your surfaces manageable while maintaining safe playing conditions.

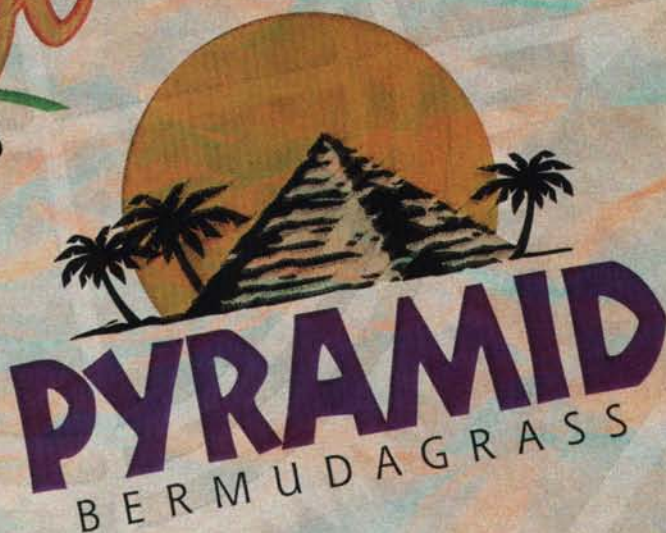
LINE-UP

- | | |
|---------------------|---------------------|
| 6 Front Office | 31 STMA in Action |
| 6 Calendar | 39 Rookies |
| 7 STMA Message | 40 Classifieds |
| 28 Applicator's Log | 41 Ad Index |
| 30 Front Lines | 42 Tip o' the Month |

On the Cover:

KAFMO volunteers prepare the stadium field of Little League Inc. in Williamsport, Pa. (for details, see "STMA in Action" inside).
Photo courtesy: Don Fowler.

ISI discovers the secret to superior bermudagrass turf



Hot or cold? North or South? What's the right bermudagrass for your unique needs?

International Seeds has found the answer for any situation with Mirage and Pyramid seeded bermudagrasses.

Mirage is cold tolerant and especially adapted to the more temperate, northern regions while Pyramid's aggressive stoloniferous growth habit make it ideal for warmer, southern climates.

Moderately dark green in color, Mirage gives you improved turf quality, winter survival, early spring greenup and strong, durable sod.

Pyramid is slightly darker green. It also has a distinctively fine leaf texture – finer than many of the other new seeded bermudagrasses. Sowing Pyramid results in a very dense, uniform sod that performs beautifully in full sun.

Using domestic and international sources, both Mirage and Pyramid are derived from the latest plant breeding technology and have performed well in recent turf trials.

Search no further for answers to your tricky turf situations. With Mirage and Pyramid some turf management problems are a thing of the past.

"Seed - the Gift of Life"®

 **INTERNATIONAL SEEDS, INC.**

P.O. Box 168 • Halsey, Oregon 97348 • (541) 369-2251 • 1-800-445-2251 • FAX (541) 369-2640 • intlseed@intlseed.com

Circle 102 on Postage Free Card

THE FRONT OFFICE

OPINION PAGE



Examples of Sports Turf

Like last year, the voting was very close for this year's 1996-97 Field of the Year Awards. Read the article about the amazing Dodd Stadium in this issue and see if you don't agree that it deserves to win just about any contest of beauty. Yet it edged the runner-up in its category by one point. It therefore came away not so much *the* winner as an example of the kind of work sports turf managers today in general are doing.

As one of the judges for the Beam Clay Baseball Diamond of the Year Awards wrote on his ballot: "All of the participants deserve to win. It was tough to judge, and all deserve to be rewarded. Thank you for having me for a judge. I read all the entries, and all were very good."

Saying this, he recognized all entrants for their "excellence in maintaining safe, professional quality diamonds" — the standards by which the Beam Clay Awards are judged. He also voiced the praise of the other judges, a panel consisting of the following Major League groundskeepers: Joe Mooney, Boston Red Sox (AL-East); Tom Burns, Texas Rangers (AL-West); Barry Foley, Pittsburgh Pirates (NL-Central); and Steve Peeler, St. Louis Cardinals (NL-Central).

Through articles in the next two issues, you will see the other shining examples the judges selected for the Beam Clay Awards. Then in subsequent magazines, you'll get to meet the winners of the prestigious STMA Field Awards, which presented its judges with equally tough choices.

To everyone who submitted a field for consideration, the staff of this magazine thanks you for entering the race and allowing us to look on. And, of course, we must congratulate the following for leading their respective packs:

- Beam Clay Professional Baseball Diamond: Thomas J. Dodd Memorial Stadium, Norwich, Connecticut; Will Schnell, stadium superintendent.
- Beam Clay College Baseball Diamond: Mark Light Stadium, University of Miami, Coral Gables, Florida; Kevin Hardy, head groundskeeper.
- Beam Clay Schools/Municipalities/Parks Baseball Diamond: Wausau Athletic Park, Wausau, Wisconsin; Greg Freix, park manager.
- STMA Softball Field: Jim Drikakis Field of John Bailey Park, Battle Creek, Michigan; Mike Varner, head groundskeeper.
- STMA Soccer Field: Legion Field, Birmingham, Alabama; James Boynton III, director.
- STMA Collegiate Football Field: Jack Trice Field, Cyclone Stadium, Iowa State University, Ames, Iowa; Mike Andresen, athletic turf manager.
- STMA High School Football Field: Flinn Memorial Stadium, Quincy, Illinois; Kurt Knuf, turf manager.
- STMA Special Recognition for Community Involvement and Most Improved Field in a Year's Time: John Reed Football Field of Riverside High School, Oakland, Iowa; Richard Harris, athletic director; Dave Thomas, school superintendent; and Charles Vance, landscaper.

EVENTS

CALENDAR

March

18 "Irrigation System Operation and Principles of Design," an educational seminar cohosted by the Mid-Atlantic Association of Golf Course Superintendents and the GCSAA. Bethesda, Md. Phone: (800) 472-7878.

18 "Turfgrass Ecology," an educational seminar cohosted by the Central New York Golf Course Superintendents Association and the GCSAA. Syracuse, N. Y. Phone: (800) 472-7878.

19 "Irrigation Water Quality," an educational seminar cohosted by the Philadelphia Association of Golf Course Superintendents and the GCSAA. Philadelphia, Pa. Phone: (800) 742-7878.

19-20 18th Annual CLCA Landscape Industry Show. Long Beach, Ca. Contact: Kim Heckes. Phone: (916) 448-2522.

20 "Turfgrass Stress Management," an educational seminar cohosted by the Greater Cincinnati Golf Course Superintendents Association and the GSCAA. Cincinnati, Ohio. Phone: (800) 472-7878.

20 "Drainage Systems," an educational seminar cohosted by the Cactus & Pine Golf Course Superintendents Association and the GCSAA. Phoenix, Ariz. Phone: (800) 472-7878.

April

22-23 University of California Extension - Davis, in cooperation with U.C. Cooperative Extension, offers "Integrated Turfgrass Pest Management for Professionals." Contact: University Extension, University of California, Davis, CA 95616. Phone: (916) 757-8899.

Send announcements of your events two months in advance to:
Editor, **sportsTURF**, 68-860 Perez Road, Suite J, Cathedral City, CA 92234. Fax: (619) 770-8019.

STMA MESSAGE



By
Mike Schiller

Spring To It



With the crush of the daily routine, let's keep focused on what our efforts are all about — providing better and safer sports turf areas so all athletes — whatever their age, gender or skill level — have the opportunity to perform to the best of their abilities.

For that to happen we, the sports turf managers, need to perform to the best of our abilities, making the most of our budgets and resources. As we are sometimes all too aware, this is no easy task. Budgets get tighter at the same time that field use demands increase. While STMA can't make that crunch go away, the goal of your national and chapter organizations is to help provide the tools that will enable you to do your

job better. STMA is your organization. You are the driving force, the key resources, the top contributors of ideas and expertise — and the ones who will benefit most from active participation.

We're moving ahead and some exciting things took root at our 8th Annual Conference in Colorado Springs.

Chapter representatives got together for breakfast and discussion. Mike Andresen, athletic turf manager for Iowa State University, Ames, Iowa, took on the duties of chairman of the Chapter Relations Committee. Mike has asked all chapter presidents to serve on the committee and has called for a more active information exchange and sharing of ideas among the chapters. If you have questions or suggestions, please contact Mike or call headquarters, and they'll pass the information along.

Steve Wightman, turf manager, San Diego Jack Murphy Stadium, hosted a breakfast meeting for

Category I members — the sports turf managers of professional sports facilities. This group is brimming with ideas to increase the more technical aspects of STMA educational programs, raise our level of professionalism, and help gain more visibility and respect within the green industry, athletics and the general public, for all sports turf managers.

In addition, the core committee of the Certification Committee held their first meeting. This group, chaired by Dr. Henry Indyk, will be meeting again this month. To ensure accuracy, they request that all those with input for consideration pass that information along to headquarters in writing. This is obviously a major project, but one that should benefit all sports turf managers personally and our industry as a whole.

So everybody, there's lots of neat "stuff" in the works — and to pull it all together — STMA needs you!



Get Serious With STMA

Application for Membership

The Sports Turf Managers Association (STMA) is an organization of professionals representing all segments of the sports turf industry. Our members work to combine the science of growing grass and the art of maintaining sports turf to produce playing fields that are both safe and aesthetically pleasing.

STMA provides members with a variety of benefits, including: education through regional institutes and conferences; support for sports turf research; facilities tours; a national awards program; access to the STMA National Conference and Exhibition; complimentary subscriptions to Sports Turf Manager and sportsTURF Magazine; and much more.

If you're serious about the sports turf industry, then it's time to become a member of STMA. Join today!

Member Information

Name _____
Title _____
Employer _____
Type of Business _____
Address _____
City _____ State _____ Zip _____
Phone _____ Fax _____
E-mail Address _____
Signature _____
Referred by _____
(STS)

Membership Category (please check one)

- | | |
|---|-------|
| <input type="checkbox"/> Professional sports turf facility manager | \$75 |
| <input type="checkbox"/> Four-year colleges and universities sports turf facility manager | \$75 |
| <input type="checkbox"/> Other schools, research, ext. agents, teaching | \$75 |
| <input type="checkbox"/> Parks and recreational sports turf facilities | \$75 |
| <input type="checkbox"/> Commercial (US or International) | \$175 |
| <input type="checkbox"/> Additional members from same company | \$45 |
| <input type="checkbox"/> Student (non-voting) | \$20 |
| <input type="checkbox"/> International (other than commercial) | \$75 |
| (must be in US dollars) | |

Total amount enclosed \$ _____

Please enclose payment (check, money order, Master Card, Visa, Discover or American Express) and send to:

Sports Turf Managers Association, PO Box 3480, Omaha, NE 68103-0480

For more information, contact STMA Headquarters at 800/323-3875

"Promoting Better and Safer Sports Turf Areas"

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 preseason 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

SubAir™

Sportfield Systems

- Complete Soil Aeration
- Temperature Moderation
- Removal of Carbon Dioxide, Methane, Hydrogen Sulfide
- Prevention of Thatch and Organic Accumulations
- Air Circulation
- Water Removal



air + water through soil

SubAir™

Controlling the Root Zone through Science

800-333-2071 • 860-526-0884

BEACON BALLFIELDS HAS IT ALL!

- INFIELD COVERS & MATS
- GROOMING TOOLS
- DRAGS & HARROWS
- BATTER'S BOX SOLUTIONS
- BASES & PLATES
- FLEXIBLE FENCING
- ON-FIELD EQUIPMENT STORAGE
- LINE MARKERS & LAYOUT TOOLS
- BATTING & GOLF CAGES
- CUSTOM NETTING & PADDING
- INFIELD SCREENS
- TURF & STABILIZER
- SOIL ADDITIVES
- WATER REMOVAL EQUIPMENT
- FOOTBALL STENCILS & SIDELINE TAPES
- GROUNDKEEPING BOOKS & VIDEOS

CALL FOR OUR COMPLETE CATALOG!
800-747-5985

INTERNET:
WWW.BALLFIELDS.COM

E-MAIL:
BILL@BALLFIELDS.COM

P.O. Box 45557
MADISON, WI 53744