1995
SPORTS TURF MANAGERS ASSOCIATION
CONFERENCE & EXHIBITION
FEBRUARY 4-8, 1995
PIRATE CITY, BRADENTON, FLORIDA

Make plans now to learn and review the essentials of sports turf management in the heart of baseball spring training country. Pirate City and McKechnie Field, winner of the 1993 Baseball Diamond of the Year Award, are located just south of Tampa/St. Petersburg.

What better place to launch a tour of premier amateur, professional, and municipal sports turf facilities? Besides the Seminar on Wheels, the conference features seminars on the diamonds at Pirate City, an exhibition of equipment and supplies, including demonstrations, and plenty of opportunity to ask fellow sports turf managers for their solutions to your most challenging problems.

The annual meeting is also your opportunity to get involved in the Sports Turf Managers Association, the only organization of its kind in the U.S. Representatives from all STMA regional chapters will be there to help you start a chapter in your own area.

While you’re in Florida, don’t miss the beaches, golf and wealth of theme parks and movie studios.

Start 1995 off right with the STMA Conference & Exhibition in Bradenton! Watch for more details in the coming months.

SPORTS TURF MANAGERS ASSOCIATION
401 North Michigan Avenue • Chicago, Illinois 60611
(312) 644-6610
that’s more like 50:50,” says John Dimatteo of Lofts Seed in Bound Brook, NJ, marketer of Palmer. “The smaller seed works its way into the bermudagrass canopy better than ryegrass. If the Poa goes out, you are covered for a few more days by the ryegrass.”

Melanie Fraser, manager of Turf Seed’s East Coast research facility near Raleigh, NC, warns turf managers that Poa trivialis is considered a serious weed by sod growers and golf course superintendents with bentgrass greens. “It is stoloniferous and persists in clumps in other turf,” she cautions. The rough bluegrass can linger in shaded or moist areas when you want the bermudagrass to kick back in. Some people object to its apple green color.

Breeders are currently selecting darker green varieties of Poa trivialis. Some turf managers might recall that the early perennial ryegrasses were light green, wider bladed, and shredded when mowed. Who can say where rough bluegrass will end up?

By dedicating the resources to safe and quality turf, more schools, parks, and other sports facilities have the skilled personnel to manage overseeding.

In the meantime, the use of bermudagrass, especially improved seeded bermudas, is moving northward. Groundskeepers over an increasing part of the country can deliver both the best summer turf and the best winter turf for heavy sports use. By dedicating the resources to safe and quality turf, more schools, parks, and other sports facilities have the skilled personnel to manage overseeding.

The demand for overseeded turf in the winter is steadily increasing. Benefits of appearance, impact absorption, soil stabilization, temperature moderation, and oxygen production continue to outweigh concerns over water, debris produced during overseeding, and maintenance chemicals. In the case of sports turf, overseeded turf is now the standard by which athletic directors and park superintendents are judged.

“Once you begin to overseed, it’s difficult to stop,” points out Pepin, who is now president of Pickseed in Tangent, OR. “Coaches, players and spectators are fairly insistent on overseeded turf once they are exposed to it. The turf manager has little choice but to comply.”

---

MACHINE INSTALLED TURF

The 30” wide roll is the most practical size large roll on the market today!
Only the “CYGNET” machines actually install turf by turning the rolls at ground speed with tighter and fewer seams.

THE “CYGNET 30”
Cygnet Turf is the exclusive licensee under U.S. Patents; 5,215,278 and 5,307,880 covering the illustrated equipment. Also, licensee under corresponding foreign patent.

CYGNET TURF
4111 Insley Road
North Baltimore, Ohio 45872
(419) 655-2020
(419) 354-1112
(419) 352-1244 Fax

©1994 Cygnet Turf

For athletic fields, golf courses or large areas the “CYGNET 48” is our premium machine. We install. Call us!
Application Deadline
For Rutgers Program

Applications are being accepted for the two-year Rutgers Professional Golf Turf Management School, one of the nation’s leading professional educational programs in golf turf management. The course is presented in two 10-week sessions over two years and requires two seasons of supervised field experience where students apply skills developed in the classroom.

In this program, students learn technical skills required of all superintendents, such as turfgrass establishment, maintenance of greens and tees, plant pathology, entomology and weed identification, as well as management and computer- and communication skills.

The course is recommended for golf course superintendents, assistant superintendents, greenskeepers, irrigation technicians and mechanics who have a minimum of two years of experience working in turf management.

Applications for the Winter Session, which is scheduled for Jan. 2 through March 10, 1995, are due on Oct. 21, 1994.

To request a brochure and application, or for more information, contact the Cook College Office of Continuing Professional Education, P.O. Box 231, New Brunswick, NJ 08903-0231. Phone: (908) 932-9271.

California Senate Kills Pesticide Bill

The five-member Rules Committee of the California State Senate killed a bill that would have streamlined the state’s pesticide review standards. The bill’s author, freshman Assemblywoman Julie Bornstein (D-Palm Desert), offered to gut most of the bill in a futile attempt to keep it alive.

In its original form, Bornstein’s bill would have allowed for the use of new pesticides more quickly, because existing state requirements would be adjusted to bring them in line with federal requirements, which are less stringent.

The measure would speed-up registration of many new pesticides if their use had already been approved by the EPA. Under present California law, new pesticides must have a separate state study and approval, which can take up to two years.

“This measure would have streamlined the pesticide registration process in California without sacrificing the state’s high standards for pesticide safety,” Bornstein says.

Annual Conference
and Show

The 42nd Annual Florida Turfgrass Association Conference and Show is scheduled to be held at the Broward County Convention Center, Sept. 18-21. The theme of the show is “Turf’n Surf.”

Known as the “largest warm-season turf show” in the southeast, this event is estimated to attract more than 3,000 attendees from all areas of the green industry. More than 350 exhibits from the United States, Canada and England will display new products along with the latest techniques and strategies for the turfgrass industry.

During the trade show, workshops will be led by qualified specialists. Topics range from golf/sports turf maintenance and general turf lawn care, to government regulations and environmental policies.

For more information call the FTGA at (800) 882-6721.

Are your athletic fields smooth and uniform?

Top Dressing will level existing turf producing a safer, more consistent playing surface.

Top Dressing is the process of adding new soil to existing turf. Repetitive top dressing will level the turf and promote the decomposition of thatch. Where turf is underdeveloped, special mixtures of top dressing will improve soil drainage and stimulate growth.

The Mete-R-Matic® Top Dressers are specifically designed for uniform application of top dressing to sports turf.

TURFCO MFG, INC. Phone (612) 785-1000 Fax (612) 785-0556

“Call for our free booklet "Top Dressing Sports Turf".”
New Wave:

CAMPBELL GUIDES TENNESSEE
BACK TO NATURAL TURF

The finished natural turf product. Bob Campbell (right).

By Bob Tracinski

The University of Tennessee's Neyland Stadium, home of the perpetually nationally-ranked football Volunteers, was converted to artificial turf in 1968. At that time, artificial surfaces for sports activity were "the wave of the future," deemed more playable, better for the athletes and less costly to maintain. Knoxville's University of Tennessee was the first outdoor stadium to make the move. Over the years, several new "rugs" were required to keep the surface in good condition. As the time approached to replace the rug yet again, a swell of support arose for the switch back to natural turf. Rumors surfaced that other schools were using the artificial playing surface as a negative factor in recruiting against UT Coach Phillip Fulmer. Where once the student athletes' "perceptions" of top playing conditions were reflected by the school's artificial turf, that same surface now appeared to be coloring potential athletes' "perceptions" of where they should invest their playing skills.

Obviously, the decision to convert a high-profile, heavily-used artificial surface to natural turf is not undertaken lightly. Also obvious is the fact that Bob Campbell, assistant director of athletic facilities at the University of Tennessee, takes no part of his responsibilities lightly. Bob Campbell does his homework. He believes in research, fact-finding, probing, questioning, checking and re-checking, seeing what works, finding out what doesn't work, and always seeking the "WHY" behind the results.

Campbell joined the UT staff in 1990 with a strong sports-related background. In the early 1970s, Campbell attended the University of Tennessee and served as an assistant baseball coach. After graduating with a degree in accounting, he taught at the high school level and, for 16 years, he coached both baseball and football. As is the case in many high school situations, Campbell served as his own groundskeeper to get and keep the best possible playing conditions for his student athletes.

Ten years ago, he quit the coaching scene in favor of a groundskeeper position with a AA baseball franchise. During this period, he was still a full-time teacher. Finally, the challenge of groundskeeping at the university level drew him to his current position with the University of Tennessee.

Campbell says, "This is the big time. Tennessee has no professional-level football. Neyland Stadium is filled to the full 95,000 capacity for every home game, and every eye and ear in the state focuses on our team. It doesn't get any bigger than this."

As a dedicated alumnus, Campbell had been monitoring the artificial versus natural turf situation prior to making the move. Once on board, he dug into this homework in earnest. "I knew a decision would be made, and I wanted to have everything ready to move if we did go to grass," he asserts.

Typical of Campbell's style, he sought input from Dr. Tom Samples, turfgrass...
extension specialist for the university. Samples became not only a top researcher on the project, but also what Campbell calls “my personal tutor and mentor. There’s so much more that can be covered by working one-on-one with Tom than I could ever get in a classroom setting. Besides, Tom has this knack of taking the most complex technical output and translating it into ‘real-world’ terms. And it’s never, ‘you must do it this way’ - it’s ‘if you adopt these methods, these are the probable outcomes - if you adopt those methods instead, those are the probable outcomes.’ The decision is mine to make based on the best technical input available.”

“Before a natural field could be considered seriously, we had to determine whether the stadium site could support turf growth,” says Campbell. “Neyland Stadium had been expanded after the artificial field was installed. The steep configuration of the existing structure blocks sunlight from much of the field for relatively long periods. Dr. Joanne Logan and her class conducted a concentrated shade study with computer models and related field tests to determine the exact shade levels and the degree of shade to which all sections of the field were subjected throughout the year. After reviewing the data, Dr. Samples’ conclusion was that, while the situation was not ideal, we could grow grass. Then we tackled the other concerns in earnest.”

Campbell’s approach to determining what kind of field could and should be built again was typical. He began checking ALL of the options. “I read everything I could get my hands on,” he says. “I visited as many different stadiums as I could and talked to the grounds managers there. I attended the national Sports Turf Managers Association meeting in Indianapolis. And I asked everyone a series of questions: ‘What do you like about your field? What don’t you like about it? What would you do differently if you were to build it now, from scratch, with no constraints? And to all the answers I asked WHY.”

Campbell expanded his list of advisors, adding Dr. Coleman Ward of Auburn University, Dr. Gil Landry of the University of Georgia, Dr. Lloyd Callahan of UT, Dr. A. J. Powell of the University of Kentucky, and a contact from the STMA meeting, Chuck Dixon, president of technical operations for Turf Diagnostics and Design, Inc., Olathe, KS.

Campbell is a great listener. He made notes of who did what and why. Then he ran all of that information by Samples to get his input and to help generate more questions.

Campbell’s information base was drawing him toward the USGA-greens-specification type of field. He quizzed Dixon on field construction and especially on the field the company had helped develop at the University of Florida in Gainesville. With five years of history, this field was holding up well and had met with apparent approval from its coaches, players and grounds-care staff.

But naturally, Campbell didn’t stop there. He made a site visit to Gainesville, talked with Mike Powell and other people there himself and asked his series of questions.

continued on page 26
“With all the positive input, it was the consensus that if the move was made to natural turf, a USGA-greens type field was the way to go,” Campbell continues. In the spring of 1993, Coach Fulmer and Athletic Director Doug Dickey officially made the decision to convert the field to natural turf. Then Campbell provided his recommendations on the type of field that should be built. At this stage, and throughout the entire project, “Support within the University has been great. Everyone was behind this conversion and did everything they could to ensure its success,” Campbell maintains.

Campbell can’t say enough about his staff. “Head Groundskeeper Myron Roach is tops,” he insists. “With our established fields and practice fields, I just make sure the staff has the materials and equipment they need to work with and stand back and let them make it look good. We have three full-time and three part-time personnel assigned to the athletic fields and there’s not one of them I’d even consider trading for anybody else’s grounds crew. This field conversion and the ongoing maintenance that natural turf will require means more work for all of these crew members. Yet every one of them has been for it and given a 110-percent effort to make it happen.”

“I think the opportunity to convert Neyland Stadium to natural turf is a once in a lifetime experience,” says Campbell. “And I wanted to make sure we did it right.” Campbell issued a memo to all involved as field construction began that laid the groundwork for the entire project: “We are going to build the best field that can be built, given what we know today about agronomy and athletic field construction.”

Campbell had formulated precise plans for the field construction. He knew the field layout, design and details; the irrigation and drainage systems that would be used; the turf type and specifications. Dixon was hired as a consultant representing the university — to select the proper materials, write the precise specifications, and handle the quality control to ensure that specs were met.

Normal university bidding procedures were followed. The general contractor awarded the bid had never built a football field before. Campbell served as the “unofficial” on-site supervisor and coordinator, as well as filling his role of providing guidelines and input on the overall project.

Though USGA-greens guidelines would be followed, there were some unique factors involved. First, there is no underlying “choker layer” on the field. Finding the “right” sand was probably the toughest construction problem encountered. The University of Tennessee football program has a tradition of speed. Campbell and Dixon assured the coaching staff that the firm, fast track they desired would be retained in the new turf field. “We don’t have golfers teeing off or putting and then moving on,” says Campbell. “We have 300 pounders digging in and hitting each other, and 22 big guys running over the same basic area again and again. The underlying cause of every loose, torn up or poorly-performing sand-based field seemed to be an improper mix of sand or a poor or incompatible choice of sod. Those were two major problems we were determined to avoid. If there was to be any error in sizing the sand, it would have to be too fine for added stability, rather than too coarse.”

More than 20 samples of sand were tested. Though many sands conformed to USGA guidelines, they weren’t properly graded to contain the mix of fractions Dixon and Campbell were seeking. Finally, after six months of looking, they selected a fine-particle glass sand and blended it with the best of the USGA-spec sand. The mix still meets USGA guidelines, but “leans” to the fine side. The sand was then blended with Dakota Reed Sedge Peat for a 90-percent sand, 10-percent peat mix. Blending of the entire 12-inch sand-peat profile was done off-site to ensure consistency. Dixon tested and monitored each step.

An underlying 4-inch layer of pea gravel also took some searching to find. The gravel selected was found in Kentucky and barged downriver to the stadium. The network of underlying drainage itself is constructed with a 16-inch crown, similar to that of many native soil fields; another example of Campbell’s attention to detail. “Though field percolation rates are hitting the 13 inches we planned on, the crown will help move surface water away from the playing area faster. And, if at some point we do decide to invest in a tarping system, it’s far easier to remove a tarp from a crowded field than a flat one,” says Campbell.

There is no in-ground irrigation system for the new field. “We wanted to eliminate ‘things’ in the field that held any potential for mechanical failure or for player injury. We’ve done that by eliminating pump-type sub-surface drainage and underground pipes, valves and heads.”

The field is watered with six off-field Nelson 150 water cannons; three on each side of the field. They’re hooked into a loop system of 6-inch water lines that can operate three cannons at a time at 80 pounds-per-square-inch pressure. Each cannon can deliver 270 gallons of water a minute. The main shut-off for the water system is under the stadium under lock and key to eliminate any accidents. Though someone does need to be present for each irrigation session, Campbell’s assessment of the advantages outweighs any drawbacks. The system can deliver 1/2 inch of water in 30 to 35 minutes when necessary. Normally, only one or two of the cannons operate at any one time.

“Both Georgia and Auburn have water cannon systems,” reveals Campbell. “Tom, Myron and I went to check them out. Tom was concerned with the droplet sizes that were issued, and Myron wanted to find out from the operators their assessment of the operational ease and efficiency. This feedback helped swing the decision.”

Another challenge was finding the right turf in the best form. Campbell had already worked with Charles Williams, manager of Nutri-Turf division of Anheuser-Busch, Inc., Fayetteville, TN, on the University practice football field and golf range, and had great confidence in the company’s abilities. Williams became nearly as absorbed in the project as Campbell.

When the decision was made to go with Tifway 419 bermudagrass, Dr. Lloyd Callahan ran DNA testing to ensure the specific plots were 100 percent true to type.
In order to avoid the soil interface and thatch layer that can become a problem even with washed sod fields, Williams opted to harvest the turf as sod, then hand-feed it through the shredding machines to produce sprigs that were virtually soil-free.

"Then he staged a parade of field planting," says Campbell. "A row planter was used to plant half of the sprigs into the ground at a depth of 3 inches, spaced in rows 4 inches apart. The row planter was followed by a broadcast spreader that spread the remaining half of the sprigs on the surface. A street roller followed behind to firm everything into place. Sprigs are normally set out at 800 to 1,000 bushels per acre. Williams used 4,000 bushels of sprigs on our two acres of field. The double-depth placement of soil-free sprigs was completed on May 9th. By July 4th, we had 100-percent coverage, with a strong rhizome base that stabilized the field."

"It took us awhile to reach a comfort zone in watering the newly-planted sprigs. The sand-based field has a much faster percolation rate than native soil fields, but water retention and availability to the plants was excellent. We filled the column with water and watered lightly again whenever the surface began to dry. Once the turf reached establishment, we increased the amount of water applied and lengthened the watering intervals to encourage deep rooting."

"Dr. Ward is doing tissue testing for us so that we can fine-tune our fertility program to match turf needs precisely."

"A moist sand-based field is similar to the section of beach bordering the water. It's firm enough to remain stable, yet gives enough to cushion activity that takes place on its surface. With the crowned field, and our infiltration rate of 13 inches, we're anticipating little need for tarping."

"We're now rethinking our field-painting process. We'll be painting the endzone in an orange and white checkerboard pattern, as well as doing the traditional lining. We'll test our system on the practice field to refine techniques and define timing options before we paint the main field. We'll also be closely monitoring the turf's reaction to the orange paint. We've researched paint options to find the least disruptive alternative."

"We've been able to do this project with few constraints. We didn't waste money - I'm much too conservative for that - but we didn't skimp on quality or omit things we felt were necessary because of cost."

"Public curiosity about this field conversion is extraordinary. Our coaches just competed in a golf tournament and the first question they were asked was 'What does the field look like?' We've set up a gate so that people can see the field, but not get out on it. We've been getting from 100 to 150 people a day since the field was in place, just stopping by to check it out. The official debut is September 17th - on national TV - and we play the University of Florida.

"Sports turf managers have to love what they do - and our families have to love us to put up with all the hours we devote to field care. Grass doesn't read a calendar or a time clock. My personal support system is terrific - my wife Toni, a math teacher at the university; son Peter, a freshman at the university in electrical engineering - and a member of my grounds crew; and my daughter Tracy, who is just starting 9th grade - all look out for me."

"If I have any edge in sports turf care, it's that my years of coaching help me understand what other coaches are looking for in a field - and hopefully help me anticipate and keep a step ahead in filling their needs. But just when you think you understand most of the ins and outs of turf care, that grass becomes determined to fool you. It's an ongoing challenge - and one that's got me hooked."

Editor's Note: Bob Tracinski is the manager of public relations for the John Deere Company in Raleigh, NC, and public relations chair for the Sports Turf Managers Association.
**PRODUCT SHOWCASE**

**Topdresser**

Turfco Mfgs' Mete-R-Matic III topdresser has the new chevron belt for leveling turf and promoting the decomposition of thatch. It is a non-hydraulic ground-driven unit pulled by most tractors and turf trucks. The chevron belt combined with the ground drive revolultionizes topdressers' abilities to uniformly spread material. It has a 5-foot-wide spread and is easily loaded with a front end loader; allowing you to uniformly topdress an athletic field in two hours or less.

**Finishing Mowers**

The ideal machine for turf grass growers, golf courses, parks and large recreational areas. Featuring sizes of 12, 15, 17, 22 and 26 feet. Constructed of high-quality components and engineered for strength in professional use. Each model features three free-floating decks, allowing for precise cutting over unlevel terrain.

**Turfgrass Seed Coating**

CelPril's Nutri-Kote™ is the grounds care professional's best friend. Nutri-Kote stimulates growth and fights disease in newly seeded turfgrass. Nutri-Kote supplies vital nutrients to young seedlings during the critical early growth stage, providing a feeding as soon as young plants come to life. Nutri-Kote improves stand establishment by promoting more vigorous, healthier, thicker plants. Available with Apron™ for Pythium control. Newly seeded greens can be played in as little as 3 weeks. Ask your turfgrass seed supplier for Nutri-Koted seed.

**Sportsfield Drainage**

Will your sportsfields be ready to play 45 minutes after a 5-inch cloudburst? Tulsa Drillers Stadium was... because it's a Championship Athletic Turf™ natural turfgrass sportsfield installed by stn sports. More than 2000 stn sportsfields are now installed in the U.S. and around the world. The list of teams that now rely on stn sports playing fields reads like a Who's Who of Successful High School, College, and Professional Sports Programs. We specialize in both the renovation of existing sportsfields and the design, construction, and planting of high-drainage turfgrass sportsfields.

**Contact Information**

- **TURFCO MFG. INC.**
  1655 101st Ave. NE, Minneapolis, MN 55449-4420
  (612) 785-1000 • Fax: (612) 785-0556
  Circle 113 on Postage Free Card

- **BEFCO, Inc.**
  P.O. Box 6036, Rocky Mount, NC 27802-6036
  (800) 334-6617 • Telefax: (919) 977-9718
  Circle 114 on Postage Free Card

- **CelPril**
  251 Oak Street • Manteca, CA 95337
  (209) 823-1738 • (209) 823-8855 fax
  Circle 115 on Postage Free Card

- **stn sports**
  southern turf nurseries
  Norcross, GA 30071
  1 (800) 448-8069 • FAX (404) 448-6832
  Circle 116 on Postage Free Card