#### FROM THE PUBLISHER or the past few years we've been saying that the or the past tew years we've peen saying that the sports turf market is developing at a much more rapid pace than it has in the past. We were reporting what we saw and heard in the inrapid pace than it has in the past. We werent guessing. We were reporting what we saw and heard in the industry. It was for this reason that we heliaved a nublication ing. We were reporting what we saw and neard in the industry. It was for this reason that we believed a publication dustry. It was for this reason of the tirt market was in order reported to virtue encoded account of the tirt market was in order dustry. It was for this reason that we believed a publication geared to your special segment of the turf market was in order. It takes a lot of courage and penule to but your money where eared to your special segment of the turt market was in order. It takes a lot of courage and nerve to put your money where our mouth is and start up a brand new managine in a field IT TAKES A lot of courage and nerve to put your money where your mouth is and start up a brand-new magazine in a field that the newer heep property addressed before. However, both your mouth is and start up a brand-new magazine in a field that's never been properly addressed before. However, rine that's never been properly addressed before that the time was rine. That's never been properly addressed before. However, both that she time was ripe. Bruce and I shared a gut instinct that the time was greater and the shared to including turk extension agents. ruce and I snared a gut instinct that the time was ripe. Everyone we talked to, including turf extension agents, and enorse turf managers them and enorse turf managers. Everyone we talked to, including turf extension agents, consultants, manufacturers, and sports turf managers them consultants, manufacturers, and sports TURF. Where selves, encouraged us to go forward with sports TURF. we aimed to go hecause other nublishers would not tread. We aimed to go hecause other nublishers serves, encouraged us to go forward with sports LUHF. Where other publishers would not tread, we aimed to go—because of your own publication e felt you were deserving of your own publication. As the turfgrass industry grew, I felt that the time to the future will tell if we were right. As the turfgrass industry grew, I felt that the time to the future will tell if we were right. As the turfgrass industry grew, I felt that the time to zero in on your highly specialized segment of the market was indeed opportune. Only the future will tell if we were right. It takes outs to be on the cutting edge. or wrong, yet I can't help but feel the momentum. It takes outs to be on the cutting edge. segment of the market was indeed opportune. Only the future will tell if we were right. Only the future will tell if we were right. It takes guts to be on the cutting edge. It takes guts to the needs of managers or wrong, yet I can't help but feel the momentum. It takes guts to the needs of managers or wrong, yet I can't help but feel the momentum. It takes guts to the needs of managers or wrong, yet I can't help but feel the momentum all its editorial to the needs of managers. I know personally the need was there for a publication that directs all its editorial to the needs. As an avid reader of trade magazines. I know personally the needs of high-traffic turf areas. As an avid reader of trade magazines. other publishers would not other publishers. The need was there for a publication that directs all its editorial to the needs of managers of trade magazines, I know personally and large, high-traffic turf areas. As an avid reader of trade magazines, I know personally of large, high-traffic turf areas. As an avid reader of trade magazines, I know personally substituted in a publication that talks about substitute to maintain my interest in a publication that talks about substitute to maintain my interest in a publication that talks about substitute to maintain my interest in a publication that talks about substitute to maintain my interest in a publication that talks about substitute to maintain my interest in a publication that talks about substitute to maintain my interest in a publication that talks about substitute to maintain my interest in a publication that talks about substitute to maintain my interest in a publication that talks about substitute to maintain my interest in a publication that talks about substitute to maintain my interest in a publication that talks about substitute to maintain my interest in a publication that talks about substitute to maintain my interest in a publication that talks are the magazines. of large, high-traffic turf areas. As an avid reader of trade magazines, I know personally that it becomes very difficult to maintain my interest in a publication that talks about subjects outside my primary concern. that it becomes very difficult to maintain my interest in a publication that talks about subjects outside my primary concern. Jiects outs Similarly, professionals in charge of large turf areas must find it very difficult to browse through a trade publication that also talks about small landscape contractors and the jobs through a trade publication that also talks about small landscape or maintaining a landscape through a trade publication that also talks about small landscape or maintaining a landscape through a trade publication that also talks about small landscape or maintaining a landscape turf areas must find it very difficult to browse through a trade publication that also talks about small landscape contractors and the jobs a landscape a landscape a landscape through a trade publication that also talks about small landscape contractors and the jobs a landscape contractors and the jobs through a trade publication that also talks about small landscape contractors and the jobs a landscape of maintaining a landscape contractors and the jobs a landscape contractors and the jobs and through a trade publication that also talks about small landscape contractors and the jobs a landscape contractors and the jobs a landscape contractors and the jobs and through a trade publication that also talks about small landscape contractors and the jobs a landscape contractors and the jobs and through a trade publication that also talks about small landscape contractors and the jobs at landscape contractors. they do. What does someone whose business is installing or maintaining a landscape on a quarter-acre homesite have to do with the sports turf manager's concern about constant on a quarter-acre homesite have to do relate one to the other. affic on tens of acres? It must be hard to relate one to the other. However, when it comes to high-traffic turf areas, sports TURF Magazine covers it all—from the complexes and their campus arounds and stadingly of the courses to sports complexes. The state of the courses to sports complexes. However, when it comes to high-traffic turf areas, sportsTURF Magazine covers it all—from golf courses to sports complexes, to universities and their campus grain have a common ums, to parks and recreational areas and resorts. These varied endeavors all have a common ums, to parks and recreational areas and resorts. on a quarter-acre homesite have to do with the sports turf manager's cont on a quarter-acre homesite have to do with the sports turf manager's contraffic on tens of acres? It must be hard to relate one to the other turf areas. SportsTURF Madazin However, when it comes to high-traffic turf areas. golf courses to sports complexes, to universities and their campus grounds and stadional courses to sports complexes, to universities and their campus grounds and stadional areas and resorts. These varied endeavors all have a common ums, to parks and recreational areas and acres of heavily used turf. These varied endeavors all have a common universities and their campus grounds and stadional their campus grounds are as and resorts. thread—the maintenance of acres and acres of heavily used turf. The demand to play on well thread—the maintenance of acres and acres to sports today. The demand to play on well sports today. The demand to play on well thread—the maintenance teven having superintendents have Golf is surely one of the largest participant sports even having superintendents have groomed courses increases daily. Some courses are even having superintendents utilized groomed courses increases daily. Some courses are even having superintendents that can be utilized for play to handle the crowds. To combat this traffic, golf course shat can be utilized for play to handle the crowds. To combat this traffic, golf course, ones that can be utilized and implemented certain maintenance techniques, ones that can be utilized. ums, to parks and recreational areas and resorts. These varied endeavor thread—the maintenance of acres and acres of heavily used turf. Colf is surely one of the largest natticinant shorts today. The definition of the largest natticinant shorts today. for play to handle the crowds. To combat this traffic, golf course superintendents have developed and implemented certain maintenance techniques, ones that can be think the developed and implemented certain maintenance as expensive as many people think by other turf managers. These methods are not as expensive developed and implemented certain maintenance techniques, ones that can be utilized think. developed and implemented certain maintenance techniques, ones many people think. These methods are not as expensive golf course supports the money to do what golf course sat colleges, which is the money to do what golf course sat colleges, which is the money to do what golf course sat colleges, and the money to do what golf course sat colleges, which is the money to do what golf course sat colleges, and so what golf course sat colleges, which is managers and provide safe and sate in the managers of the management, make it happens "Their positive, Instead of lamenting, who their management, make it happens to say to their management, make it happens they need to make it happens they are safe and stable provided the support I need to make it happens they are safe and stable provided the support I need to make it happens they are safe and stable provided the support I need to make it happens they are safe and stable provided the support I need to make it happens they are safe and stable provided the support I need to make it happens they are safe and safe a developing the skills and the confidence to ask for the help they need. Their positive, ask for the help they need. Their positive, the skills and the confidence to ask for the help they need. Their positive, ask for the help they need they n dynamic attitude is the driving force behind the new momentum in the sports turf industry. Turf managers at high schools and city and county parks have constantly in play, by the common. They work with small-to-modest budgets, their fields even better by the common. They work with small-to-modest play. They learn how to make their fields even better by they have to keep them in condition. common. They work with small-to-modest budgets, their fields are constantly in play, yet better by the small-to-modest budgets, their fields are constantly in play, yet make their fields even better by they have to keep them in condition. They learn how to make their fields even better by they have to keep them in condition. They learn how to make great strides at parks talking to their fellow turf managers at major universities, golf courses and strides at parks they can make great strides at training facilities used for professional sports. They can make great strides at training facilities used for professional sports. talking to their fellow turf managers at major universities, golf courses and stadiums, and at training facilities used for professional sports. They can make great strides at training facilities used for professional sports. They can make great strides at training facilities used for professional sports. at training facilities used for professional sports. They can make great strides at part and schools with some of the affordable techniques used by these other facilities. I think sportsTURF covers the market well. and schools with some of the affordable techniques used by these other facilities. I think sportsTURF covers the market well. There is no doubt that we strive in each in eac I think sportsTURF covers the market well. There is no doubt that we strive in each sisue to make it the best magazine for your specialized needs. Beginning with the new issue to make it the best magazine for your specialized needs. Beginning with the new year, we will expand our coverage even further, but always within your particular area year, we will expand our coverage even further. issue to make it the best magazine for your specialized needs. Beginning with the new year, we will expand our coverage even further, but always within your particular area of interest. of interest. There is an old saying—"Keep your eye on the ball!" It is something we are constantly useful information in the is an old saying—"Keep your eye on the ball!" It is something we are constantly useful information in the industry by disseminating timely, useful information in the aware of. If we can help upgrade the industry by disseminating new momentum in the aware of. If we can help upgrade the industry by disseminating new momentum in the aware of. If we can help upgrade we will contribute to the exciting new before aware of. If we can help upgrade we will contribute to the exciting new momentum in the aware of the can help upgrade the industry by disseminating new momentum in the aware of the can help upgrade the industry by disseminating new momentum in the aware of the can help upgrade the industry by disseminating new momentum in the aware of the can help upgrade the industry by disseminating new momentum in the aware of the can help upgrade the industry by disseminating new momentum in the aware of the can help upgrade the industry by disseminating new momentum in the aware of the can help upgrade the industry by disseminating new momentum in the aware of the can help upgrade the industry by disseminating new momentum in the aware of the can help upgrade the industry by disseminating new momentum in the aware of the can help upgrade the industry by disseminating new momentum in the aware of the can help upgrade the industry by disseminating new momentum in the aware of the can help upgrade the industry by disseminating new momentum in the can help upgrade the industry by disseminating new momentum in the can help upgrade the industry by disseminating new momentum in the can help upgrade the industry by disseminating new momentum in the can help upgrade the industry by disseminating new momentum in the can help upgrade the industry by disseminating new momentum in the can help upgrade the industry by disseminating new momentum in the can help upgrade the industry by disseminating new momentum and feature stories, we believe we will contribute to the exciting new momentum in the market and give sports turf managers support they didn't have course superintendent, market and give sports turf managers support they didn't have course superintendent, and give sports turf managers or easier and give sports turf managers and give sports or park. The professional, be he a golf course or park. The professional is a sport of the exciting new momentum in the exciting new mome As I reflect back, I sense that the professional, be he a golf course superintendent, has generated a sports complex manager, or a groundskeeper at a university or park, has generated a sports complex manager, or a groundskeeper at a university or park, has generated a sports complex manager, or a groundskeeper at a university or park, has generated a sports complex manager, or a groundskeeper at a university or park, has generated a sports complex manager, or a groundskeeper at a university or park, has generated a sports complex manager, or a groundskeeper at a university or park, has generated a sports complex manager, or a groundskeeper at a university or park, has generated a sports complex manager, or a groundskeeper at a university or park, has generated a sports complex manager, or a groundskeeper at a university or park, has generated a sports complex manager, or a groundskeeper at a university or park, has generated a sports complex manager. a sports complex manager, or a groundskeeper at a university or park, has generated on gaining not only. We have to keep the focus on gaining not only. We have to keep the focus on gaining not only more respect from his bosses recently. We have to keep the focus on gaining not only more respect, but more attention to the sports turf professional's needs. The professional special skills to be able to work magic with a playing field or a golf more respect, but more attention to be able to work magic with a playing field or a golf after all, it takes special skills to be able to work magic with a playing field or a golf attention to the sports of the professional special skills to be able to work magic with a playing field or a golf attention to the sports of the professional special skills to be able to work magic with a playing field or a golf attention to the sports of the professional special skills to be able to work magic with a playing field or a golf attention to the sports of the professional special skills to be able to work magic with a playing field or a golf attention to the sports of the profession o ore respect, but more attention to the sports turf professional's needs. After all, it takes special skills to be able to work magic with a playing field or a golf after all, it takes special skills and experience. Ourse. It comes with years of training and experience. course. It comes with years of training and experience. To reinforce the importance of sports to our country, manager. Although this materior of newsletters and magazines that will cater to the sports etc., surely it will filter down to the all will be directed to the executives of sports teams. of newsletters and magazines that will cater to the sports manager. Although this materi-let will filter down to the sports teams, etc., surely it will filter down to the al will be directed to the executives of sports teams, etc., surely it will filter down to ask will be directed to the executives will be directed to the executive to the executive will be directed to the executive to the executive will be directed to the executive After all, it takes special skills to be able to work maging and experience. Course. It comes with years of training and experience. To reinforce the importance of shorts to our country. al will be directed to the executives of sports teams, etc., surely it will filter down to the herculean task begin to appreciate the herculean task playing field. Hopefully even more executives will begin to appreciate the herculean task playing field. Hopefully even more executives to do it even better in the future. ou all face daily, and give you the tools to do it even better in the future. To this end—the greater success and prestige of the sports turf professional—we dedicate turselves. playing field. Hopefully even more executives will begin to appreciate the nercontrol of the sports turn professional—the death of the sports turn professional—the greater success and prestice of the sports turn professional—the greater success and prestice of the sports turn professional—the greater success and prestice of the sports turn professional—the greater success and prestice of the sports turn professional—the greater success and prestice of the sports turn professional—the greater success and prestice of the sports turn professional—the greater success and prestice of the sports turn professional—the greater success and prestice of the sports turn professional—the greater success and prestice of the sports turn professional—the greater success and prestice of the sports turn professional—the greater success and prestice of the sports turn professional—the greater success and prestice of the sports turn professional—the greater success and prestice of the sports turn professional—the greater success and prestice of the sports turn professional—the greater success and prestice of the sports turn professional—the greater success and prestice of the sports turn professional—the greater success and prestice of the sports turn professional—the greater success and prestice of the sports turn professional professional—the greater success and prestice of the sports turn professional p ourselves.

### THE FRONT OFFICE

### OPINION PAGE

#### GROWTH DEMANDS TRAINING FOR STADIUM MANAGERS



s the sod was being laid this past May to complete construction of Joe Robbie Stadium, the new home of the Miami Dolphins, the stadium still did not have a sports turf manager. Negotiations with a turf manager from another National Football League stadium had broken down and there was only three months to go before the Dolphins first exhibition game. It became quite clear to the Dolphins that finding a qualified manager for a professional stadium was not easy.

Fortunately, with the help of Dr. Bill Daniel, whose Prescription Athletic Turf system field graced the NFL's newest stadium, and Harry

Gill, grounds superintendent at Milwaukee County Stadium, the Dolphins found Dean Kuykendahl. He was the field manager at Lewis University in Romeoville, IL, a small university that doesn't even have a varsity football program.

Kuykendahl is a fighter-someone who pushes for what he wants. He knew virtually nothing about sports turf management when he took the job at Lewis three years before. But that didn't stop him. Lewis puts its athletic energy into its Division 2 National Collegiate Athletic Association baseball program. The first thing Kuykendahl did was decide to make Lewis's varsity field the best in the conference. He started calling universities for help with the field. His search led him to Daniel who was still teaching at Purdue University in Lafayette, IN. Daniel provided Kuykendhal with reams of information on baseball field care and told him to get in touch with Gill at Milwaukee County Stadium.

Without hesitation, Gill invited Kuykendahl to come to Milwaukee and see how he prepared the field for the Brewers. "Pops" Gill took him under his wing, as he has many other aspiring stadium field managers in the past, and gave Kuykendahl probably the best "on-the-job" training available today. The drive between Romeoville and Milwaukee became a regular trek for Kuykendahl.

The extra effort paid off. Kuykendahl asked for and received sizeable budget increases for his program at Lewis. The baseball team started bragging about their field and the athletic department backed him with the administration for improvements in the softball and soccer fields on campus.

Working those few games in Milwaukee, however, had given Kuykendahl "stadium fever." He wanted to go all the way to the top, whether that was a Division 1 university or a professional baseball or football team. He kept in touch with Gill and Daniel on a regular basis. His dream came true this June when the Dolphins put him in charge of the field at Joe Robbie Stadium.

Kuykendahl worked hard to get his break and beat incredible odds to get the job he did. That is wonderful for him, but not so wonderful for the industry

A training program for future stadium field managers needs to be developed as soon as possible. The demand for experienced field managers exceeds the ability of Harry Gill or George Toma at the Kansas City Royals to individually train all candidates for future stadium positions. Furthermore, onthe-job training needs to be backed up with at least a two-year education in turfgrass management. Up to this point, golf course superintendents and turf management students have had to learn special stadium techniques from Gill and Toma. Field managers, on the other hand, frequently lack important general turf management knowledge. They need both to succeed in the long run. Both Gill and Toma spend hours on the phone with turf experts making sure they consider all the angles of turf management when there is a problem.

Stadium field managers today must know both turf management and field preparation techniques. A two-part educational program has to be established to train the stadium managers of the future. These "complete" candidates will then be available when a stadium needs a turf manager. The last minute

scramble will hopefully then become a thing of the past.

Buck. Shook

### **EVENTS**

### CAL ENDAR

Wisconsin Golf Turf Symposium, Pfister Hotel, Milwaukee, WI. Contact: Bob Welch, Milwaukee Metropolitan Sewerage District, 735 North Water St., Milwaukee, WI 53202, (414) 225-2222

#### VEMBER

Kansas Turfgrass Conference, Ramada Inn, Wichita, KS. Contact Larry Leuthold, extension horticulturist, Kansas State University, Waters Hall, Manhattan, KS 66506, (913) 532-6170.

New York State Turfgrass Association Convention. Rochester Riverside Convention Center, Rochester, NY. Contact: Elizabeth Seme, executive director, NYSTA, PO Box 612, Latham, NY 12110, (518)783-1229.

Green Team Conference and Trade Show, Hyatt, Crystal City, VA. Sponsored jointly by AL-CA and PGMS. Contact Professional Grounds Management Society, 12 Galloway Ave., Suite 1-E, Cockeysville, MD 21030, (301) 667-1833.

Penn State Golf Turf Conference, Keller Conference Center, Pennsylvania State University, University Park, PA. Contact: Dr. Joseph Duich, Dept. of Agronomy, 21 Tyson Building, University Park, PA 16802, (814) 865-9853.

Ohio Turfgrass Conference and Show '87, Ohio Center, Columbus, OH. Contact: Ohio Turfgrass Foundation, 2021 Coffey Rd., Columbus, OH 43210, 614-292-2601.

# Dec. 7-10, 1987 The Ohio Center Columbus, Ohio Plan now to attend.

The Ohio Turfgrass Foundation Conference and Show features lectures, workshops and more than 350 exhibits for lawn care. golf course, landscape and grounds maintenance professionals



- Understanding Poa to Bent Conversion with TGR
- Experiences with Poa annua— Its Management and Control from a Plant Pathologist's Viewpoint
- Management of Localized Dry Spots
- . The Pros and Cons of Disease **Detection Kits**
- · Putting Green Management
- Insecticides Recent Developments
- Golf Course Computers Utilization and Cost
- · Personal Financial Planning
- · Stress Management
- Wildflower and Native Grass Renovation
- · Chemical and Biological Control Strategies for Aquatic Management
- Greens Reconstruction Making It Right!
- Bentgrass Fairway Management - Are We Headed in the Right Direction?
- Thinking Superintendent Time and Money-Saving Ideas
- Soil Management Facts and **Fallacies**
- . The Black Layer Sifting Through the Maze
- Greens Reconstruction
- · Bentgrass Breeding
- · Overseeding Turfgrasses
- · PGRs for Poa annua control



- Ground Covers Alternatives to Grasses in the Landscape
- Wildflower and Native Grass Renovation
- Aguatic Management Strategies for Small Ponds
- · PGRs as a Tool for the Professional Grounds Manager
- Annual and Perennial Selection and Care
- Turf-Type Tall Fescues
- Insecticides Recent Developments
- Stress Management on the Job
- Selecting the Proper Aeration Equipment
- · Pre-emergent and Postemergent Herbicides - Recent Developments
- · Soil Management in the Landscape - Facts and Fallacies
- Low Budget Athletic Fields
- Player Safety/Field Quality
- . The Agronomics of Athletic Field Management -A Reevaluation
- · Soil Management of Athletic Fields
- · Experience with Turfgrass Aeration Equipment
- · A Morning with George Toma

# Lawn Care

- . Ecology of Patch Diseases
- . The Pros and Cons of Disease **Detection Kits**
- Patch Disease Research Update
- · Why Pre-emergent Herbicides
- · Why Post-emergent Broadleaf Herbicides Fail
- · Drift and Pattern Displacement of Pesticides
- · Core Cultivation Effects on Preemergent Herbicide Efficacy -Another Look
- · Considerations and Selection of Core Cultivation Equipment
- · Soil Improvement and Management - Physical or Chemical?
- · Pre-emergent and Postemergent Herbicides for the Lawn Care Professional
- . The Pros and Cons of Turf-Type Tall Fescues
- Reducing Pesticide Usage Through Agronomic Practices
- · Experiences with PGRs in the Landscape
- · Insecticides Recent Developments
- · Alternatives to Pesticides
- Maximizing Job Satisfaction

#### Workshops

- Insurance Liability Insuring the Landscaping and Lawn Care Risk
- · Guidelines for Estimating Maintenance and Landscape Work
- · Annual and Perennial Flowers
- Understanding and Interpreting Water Quality Related to Irrigation
- · Pesticide Safety and Use

#### Ohio Turfgrass Foundation

Anyone involved in turfgrass or ornamental management is invited to attend the Ohio Turfgrass Foundation Conference and Show. For complete information and a conference program, contact:

Dr. John Street c/o Ohio Turfgrass Foundation 2021 Coffey Road Columbus, OH 43210 (614) 292-2601



Joe Robbie Stadium's PAT field is wide enough for international soccer competition.



The completed field two weeks prior to its inaugural exhibition game in August.

ome of the greatest plays in professional football are made off the field by people who never wear pads, helmets or cleats. The people making these plays are quarterbacks in their own right. but they will never be inducted into the Football Hall of Fame. They have contributed as much to the game as the greatest players who ever graced the gridiron but you'll never see them on Monday Night Football. Joe Robbie is one of these individuals.

Robbie owns the Miami Dolphins, a team he helped create in 1965 during the last major expansion of the National Football League. He knew then the importance of a stadium to the success of a NFL franchise

and has never forgotten it. Miami's Orange Bowl helped tip the scales in his favor so he could build one of the most successful franchises in NFL history.

Every fall for 20 years, Floridians flocked to the historic 75,000-seat stadium to see the Dolphins play. Loyal fans tolerated parking on city streets, college-style seating and long lines at concession stands and restrooms. The city did what it could to satisfy the team and its season ticket holders. In 1976, it installed the first prescription athletic turf (PAT) field in the NFL. Seating was upgraded as public funds were made available.

To pay for some of these improvements

## Robbie's Law: Be a Stad Not a Ten

the city added events. The use of the stadium grew as the Dolphins, the University of Miami, the Orange Bowl Classic and local high schools and colleges played on a tight schedule that included concerts, motocross, soccer and tractor pulls. Robbie and Dolphin Coach Don Shula became concerned over the impact of these other events on the condition of the field and the stadium. Professional football was becoming more businesslike. Attracting corporate sponsors, season ticket holders and the best players and coaches were based largely upon the reliability and revenue-producing ability of the stadium. So, in the late '70s, Robbie started voicing his concerns to the city and



Joe Robbie Stadium (right) is located across the Snake Canal from Calder Race Course.

## ium Owner, ant



Guy Kuykendahl paints the field for its professional debut in August.

considering his options regarding a stadium for his Dolphins.

Football was Robbie's life, but his training was in law. Rather than making snap judgements, instead he looked for small loopholes that others had failed to notice. He had developed unique contracts with his coach and some of his players to attract the best talent for his team. The answer he was looking for was not public financing or another publicly-owned and operated stadium. Why couldn't he devise a unique arrangement to build one of the only privately financed stadiums in the League?

In 1984, Robbie's research led him to HOK Sports Facilities Group, a Kansas City, MO,

architecture firm specializing in stadiums. With some creative planning, Robbie believed a stadium could pay for itself and asked HOK's Ron Labinski and Dennis Wellner for their suggestions. Having previously developed solutions for Giants Stadium, The Pontiac Silverdome, Arrowhead Stadium, Milwaukee County Stadium, Candlestick Park and the Hoosier Dome, HOK was anxious to perfect the income generating potential of skyboxes and an improved type of seating for season-ticket holders called "club seating." Both types of seating could be sold to corporate and individual sponsors ahead of time to generate the level of credit worthiness lenders require before making multimillion dollar loans.

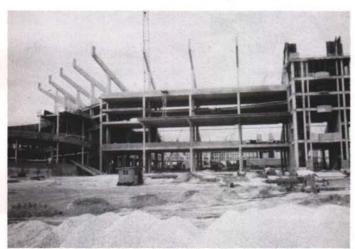
Skyboxes, luxury suites designed for corporate entertainment during games, had generated important revenue for other football and baseball franchises. In addition to the \$30,000 to \$65,000 annual lease for a skybox, a corporation bought a set number of tickets to each event held in the stadium.

Club seating was designed for individuals or small companies that wanted some of the same conveniences of skyboxes without the sky-high price. For \$600 to \$1,400 per year, fans in club seating could view the game in a comfortable, premium-

continued on page 16



More than 8,000 yards of sand were graded to a four-inch crown.



By the end of 1986, the stadium was starting to take shape.



Sand is carefully placed on top of the drain lines.

#### Robbie's Law

continued from page 15

view seat and take advantage of conveniently located lounges reserved just for them. These fans also purchase tickets for events just as skybox customers do. Labinski had helped develop the club seating concept for the Edmonton Eskimos of the Canadian Football League in 1977.

The Dolphins had become an important part of the Miami entertainmment scene without really providing local corporations with much more than a seat. Robbie believed that there was an opportunity to utilize this virtually untapped commercial support to build a new stadium. HOK proceeded with a stadium design that included 216 skyboxes and 10,000 club seats, far more than had ever been built in stadiums before.

With a 20 year record of winning teams, Robbie felt he had the solution to financing in his grasp. He convinced Dade County that tax revenues generated by a stadium in the northern part of the county would easily make up for a one dollar per year lease on 460 undeveloped acres. He then developed an extensive marketing program to obtain ten-year leases on skyboxes and club seats. Before the first shovel of earth was turned, Robbie had \$20 million in lease and ticket commitments, enough to convince three banks to lend him the \$100 million he needed to build the stadium.

He found the loophole he was looking for and revolutionized stadium financing in the process. He raised the eyebrows of owners of professional sports franchises across the U.S. and has helped fuel the hopes of investors looking for expansion teams for their city. In the long run, Robbie may have lifted a great burden off the taxpayer in cities with municipally-owned stadiums and discovered the way to "privatize" the stadium business.

He also may have removed a roadblock to major field improvement at stadiums across the country. Robbie has been a fan of natural turf since 1976 when he was instrumental in having the artificial turf in the Orange Bowl replaced with the PAT system. Natural turf meant the stadium needed a natural turf manager. Miami hired Dale Sandin, a golf course superintendent from Georgia, who got to know Robbie well over the next ten years.

"Mr. Robbie always took an active interest in the field," recalls Sandin. "When we had field problems he would first ask me what was wrong before he made any statements to the press. He always supported me when people took pot shots. He understands how the PAT system works and what can go wrong."

"Joe Robbie wanted natural turf from day one," reveals HOK's Wellner. "He was very realistic about the limitations of a natural field, but he insisted on it anyway. He supported the NFL regulation requiring all natural fields to have tarps available in case of rain. When the PAT people asked if a tarp storage area could be built underneath the stands along one side of the field, he approved the change order without hesitation."

The stadium site, which is located on the Snake Canal in Davie, FL, across from Calder Race Course, presented additional challenges for HOK, the general contractor Huber Hunt and Nichols, and Southern Turf Nurseries, the field installation contractor. At its original elevation, the water table was just a foot under the surface. Soil and compaction tests showed the existing sandy soil



Both irrigation lines and the network of perforated pipe were placed on top of the plastic barrier.

and inconsistent rock formations below the surface would not settle evenly under the weight of a stadium and 73,000 football fans.

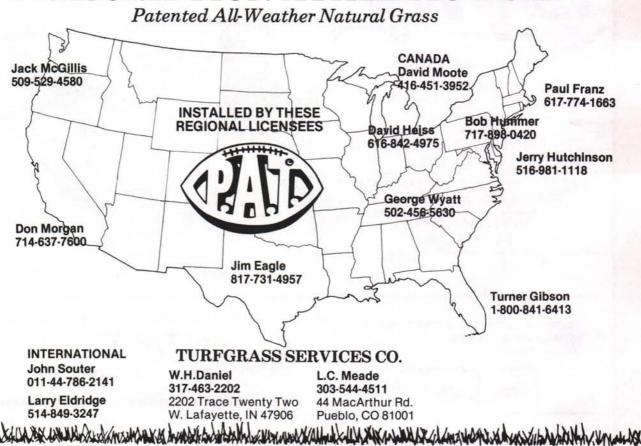
Many stadiums are built partially below ground with the field below the outside elevation. Designers like to have spectators enter stadiums on a concourse above the first level of seating. This simplifies access for all fans. Due to the shallow water table beneath Joe Robbie Stadium, a different approach was needed.

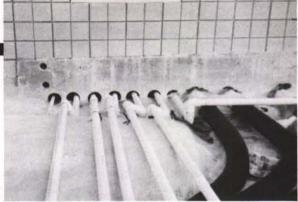
Since all fans would have to go up to reach their seats and down to exit the stadium, HOK devised a set of eight circular ramps with escalators— two for each corner of the facility. A capacity crowd can leave the stadium in about 15 minutes.

To compress the rock and sand before the first cement was poured, 500 cubic yards of fill was piled on the stadium's footprint. The 40 foot high mountain was left untouched for nearly four months before it was spread over the site. When the dozers finished, the stadium floor was ten feet above the former ground level.

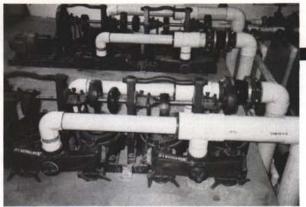
continued on page 18

### PRESCRIPTION ATHLETIC TURF





Irrigation and drainage lines lead into a central control room.



Two pumps provide suction for the drainage system.

#### Robbie's Law

continued from page 17

While not all of Robbie's experiences with PAT were pleasant, he believed he understood why because of his frequent discussions with Sandin. Cancellations are a definite threat in Miami where tropical storms are common and it rains nearly 60 inches every year. One cancellation can take more than \$200,000 off the bottom line. Robbie had seen the pumps at the Orange Bowl suck standing water off the field in a matter of minutes. Despite a tight budget, he set aside the \$600,000 for a PAT field.

As footers were poured and girders started to form the pattern of a stadium, PAT's Dr. William Daniel and Laurel Meade started making final adjustments in the plan with Dr. Tim Bowyer, Turner Gibson and Bill Wilson of Southern Turf Nurseries. The plans and prices for the stadium field were first submitted in the summer of 1985. It was now August 1986 and construction of the field was to start in February, 1987. Robbie takes special interest in the plans for the irrigation system and asks Wellner to check on other PAT fields with surface irrigation systems. He is concerned about heads located on the field. To satisfy Robbie's concern, the number of heads on the playing surface was reduced to 12, four of those in the end zone.

More than three acres of Tifway bermudagrass sod was being custom-grown on sandy soil at STN's sod farm in Lake Wales, FL. "We had soil samples from the farm tested," explained Wilson. "The lab said they were the closest thing to a greens mix they had ever seen." More than 8,000 yards of sand with a specific particle size were ordered in addition to three miles of drainage pipe, three acres of plastic liner, and 60,000 pounds of calcined clay. Orders for the irrigation supplies and two vacuum pumps were also placed months in advance.

On February 9, 1987, the STN crews began lazer grading the flat subgrade. No slope is required for the PAT system to operate. The plastic moisture barrier was installed over the subgrade and up to the stands sur-

continued on page 20



BLACK DIAMOND®

BED DIVIDER

BLACK "GENERIC" DIAMOND®

DANDY DIAMOND®

LAWN EDGING

VALLEY VIEW® PROFESSIONAL LAWN EDGING

> MINI DIAMOND® LAWN EDGING

THRIFTY DIAMOND®

LAWN EDGING

20 YEARS OF QUALITY AND STILL ON THE JOB...

THE LANDSCAPER'S CHOICE!
YEAR AFTER YEAR
THERE MUST BE A REASON!

BLACK DIAMOND®

DANDY DIAMOND®

ADDITIONAL HEAVY STEEL ANCHOR STAKES ANGLE CONNECTOR ACCESSORIES, AND KNURLED CONNECTORS ARE ALSO AVAILABLE.



FOR YOUR NEAREST DISTRIBUTOR PHONE 1-800-323-9369
"YOUR COMPLETE EDGING SUPPLIER"

Valley View Specialties Co.

13834 S. KOSTNER • CRESTWOOD, ILLINOIS 60445
312-597-0885 CALL FOR YOUR FREE CATALOG TOLL FREE 1-800-323-9369



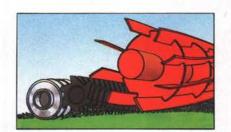
## Stroke for stroke, the best in the business.

#### Greens King® IV Diesel. Now, you can approach the green

Now, you can approach the green with the finest tournament-quality triplex greens mower and cut your fuel costs virtually in half. Because the innovative Jacobsen Greens King family introduces another industry first: *Diesel*.

The new 16½-hp. diesel Greens King IV provides more power for climbing and cutting. Plus, this diesel model has many standard features you'll only find as options elsewhere. Like full floating and pivoting reel units that steer through turns without scuffing or marking; full hydraulic drive with dynamic braking for greater control: just let up on the pedal to slow down.

The optional variable speed control lets you select the precise ground speed and frequency of cut, yet still allows full speed for transport.



By cutting horizontal runners and removing thatch, the patented Turf Groomer™ attachment creates faster, truer and healthier greens without lowering height of cut.

If you prefer a gas engine, both 14-hp. and 16-hp. models are available. Giving you the broadest selection of riding greens mowers in the industry. With more options, to help you meet your greens care needs more precisely.

Like the revolutionary, patented Turf Groomer™ attachment for faster, truer greens. Without lowering height of cut.

Circle 114 on Postage Free Card

And, the unique performance monitor which digitally displays all speeds, including cutting frequency, so the operator can evaluate mowing performance, instantly.

What's more, every Greens King is backed by the most extensive support network in the industry. So, contact your Jacobsen distributor to arrange a free demonstration. And see for yourself why the Greens King family is the best in the business.

Lease and finance plans available. Jacobsen Division of Textron Inc., Racine, WI 53403. Telex: 264428.

Greens King and Turf Groomer are trademarks of Jacobsen Division of Textron.



Jacobsen Division of Textron Inc.

#### Robbie's Law

continued from page 18

rounding the field. The network of wrapped perforated drain pipe was then put together on top of the liner. The distance between drain lines is closest in the center third of the field, the part of the field receiving the most wear. In this part of the field the lines are only eight feet apart. This enables the drainage system to remove up to four inches of rain per hour from the center of the field.

The drain lines feed into "wet pits" located behind the goal posts at each end of the field. The subirrigation system works by injecting water into the drain lines at the wet pits. By removing water from the wet pits

and adding suction, excess moisture is drawn out of the root zone quickly. This dualpurpose drainage system is really the heart of the PAT system. The sand root zone only improves its performance.

With the drainage network in place, STN started putting together the surface irrigation system. It consists of 44 Toro 640 heads, 64 feet apart, in a square pattern. The heads are divided into six zones. The playing surface is divided into two zones splitting the field down the center.

The ability to irrigate the playing surface and not the perimeter was important, but Daniel also wanted to be able to operate all zones at the same time. This required a larger six-inch main line and another change order which was quickly granted by Robbie. "We got everything we asked for," exclaimed Wilson, "The Dolphins' cooperation made this project the smoothest installation we've ever had."

With the drainage and irrigation systems in place, 8,000 yards (13 inches) of sand were spread over the field. After mixing the calcined clay into the top three inches of sand, a four inch crown running from the center of the field to the sidelines was graded. "The only purpose of the crown is to make water flow off the tarp during a rain," explains Daniel. "The NFL requires a tarp to cover the playing surface in case of rain. The areas outside of the playing surface are perfectly flat."

By May 1, all 128,000 square feet of Tifway sod was down and rolled. The sod was laid in sections to fit the irrigation zones. "Soil and air temperatures were perfect," recalls Wilson. Within days the sod was rooted into the sand/calcined clay mix. "If anything, it grew too well. We started to build up a thatch laver faster than we would have liked. We had to maintain the field ourselves until Dean Kuykendahl was hired in July."



Suction can be directed to certain parts of the field with these valves.

Kuykendahl was not very familiar with warm season grasses when he left Lewis University in Romeoville, IL, to take the job at Robbie Stadium. He had worked brief stints with Harry Gill at Milwaukee County Stadium and Steve Wightman at Denver's Mile High Stadium. "I had a lot to learn right off the bat," said Kuykendahl. "The first exhibition game was just a few weeks after I started. I had to correct the thatch and mowing problems before then. On top of that, I had to learn how the PAT system worked."

With help from Wilson and Daniel, Kuykendahl got approval from Joe Fletcher, director of stadium operations, to get verticut reels for his Deere triplex and a topdresser for sand. He also removed the front rollers from the reels so he could achieve

## You Could Win the **BEAM CLAY®** BASEBALL DIAMOND OF THE YEAR AWARD

Enter your best baseball field in the Beam Clay Baseball Diamond of the Year Award contest. No entry fee is required. You could receive the beautiful trophy to display at your facility during the upcoming

Sports Turf Managers Association Awards Banquet.

The Award is sponsored by Beam Clay, the Sports Turf Managers Association and sportsTURF magazine in recognition of efforts in promoting excellence in the management and appearance of baseball diamonds. Entries will be judged in three categories: professional diamonds, college diamonds, and school, municipal or park diamonds.

Send the information below to enter.

- 1. Age of baseball diamond (year of installation).
- Geographic location (city and state).
- 3. Operating budget for baseball diamond.
- 4. Irrigation: None\_\_\_\_ \_ Manual\_ \_Automatic\_
- 5. Total number of maintenance staff for field.
- 6. Does baseball field have lighting for night games?
- 7. Number of events on baseball diamond per year.
- 8. Types and number of events on diamond other that baseball?
- 9. How many months during the year is the field used?
- 10. Why do you think this field is one of the best&
- Include an assortment of color slides or prints of diamond.

#### Deadline for entries

Entries must be postmarked no later than November 30, 1987. Mail your entry to sportsTURF magazine, P.O. Box 156, Encino, CA 91426. Selection of winners will be made by a committee of the Sports Turf

Managers' Association.

Mail entries to: Beam Clay Award sportsTURF magazine P.O. Box 156 Encino, CA 91426



