STMA IN ACTION

ASSOCIATION NEWS

BASEBALL DIAMOND WINNERS ANNOUNCED

Baseball groundskeepers from Florida to Arizona got the good news in February that they had won the 1991 Baseball Diamond of the Year Awards. The panel of four Major League groundskeepers selected the three winners from more than three dozen entries. The contest is co-sponsored by the STMA, sportsTURF magazine, and Partac Peat Corporation of Great Meadows, NJ.

The professional diamond of the year award has been awarded to the St. Lucie County Sports Complex in Port St. Lucie, FL. Stadium Superintendent Greg Kaufman and Project Manager Rick Wise submitted the entry for the multi-field spring training complex of the New York Mets.

The collegiate diamond of the year award went to Illinois State University in Normal, IL. Superintendent of Grounds Charles Scott and Athletic Turf Specialist Mike O'Grady entered Redbird Field and captured the college prize.

Apache Junction High School in Apache Junction, AZ, won the school, park, and municipal category. Voted the best high school baseball field in Arizona by the Arizona Baseball Coaches Association, the field is under the direction of coach Mark Cisterna and groundskeeper Chad Mulholland.

Stories on the facilities will appear in the next three issues of sportsTURF magazine.

The distinguished panel of judges for this year's contest were: Don Marshall, recently retired operations manager of the stadium and golf courses in Anaheim, CA; Gary Vandenberg, head groundskeeper at Milwaukee County Stadium; Ralph Frangipani with the Philadelphia Phillies; and Larry Norton with the San Francisco Giants.

Entries for the 1992 Baseball Diamond of the Year Award will be accepted up to November. Groundskeepers who would like to enter should take photos during the season to include with their entry.

PRESIDENT'S MESSAGE

Dr. Gil Landry, Jr.

Sports Turf Managers Association

Our present game plan began forming with the election of new board members and officers during the annual meeting in San Diego. I want to commend nominations committee chair, Steve Cockerham. We have six excellent new members joining the board this year. They include Larry Perotti, Stephen Guise, Jesse Cuevas, Dr. Henry Indyk, Joe Ardolino, and Bob Milano. Those board members present in San Diego worked long and hard trying to match our limited resources with our priorities.

The board settled on the following 10 priorities listed here with individuals responsible for pursuing this objective with our executive director. The first priority, aligning our association with an existing national publication, was completed January 15 through great work by Greg Petry, our president-elect.

The other priorities include:

1. Providing support for Aimcor and Pro's Choice educational seminars (Steve Wightman);
2. Developing Little League educational seminars (Dr. Henry Indyk);
3. Establishing educational seminars in four metropolitan areas (Larry Perotti);
4. Publishing a bi-monthly newsletter (Mike Schiller);
5. Developing Youth Soccer educational programs (Bob Milano);
6. Working with the American Federation of High School Associations to develop educational programs (Dr. David Minner);
7. Developing a short-term budget to see us through our financial deficit (Ken Mrock);
8. Establishing chapter development standards which take into account both national and chapter needs (Greg Petry);
9. Conducting five regional institutes in the Northeast (Indyk); Carolinas (Landry); Midwest (Schiller); California (Guise); and Northwest (Cuevas).

Other key items being addressed by the association now include:

1. Formal arrangements with national publications for regular coverage of STMA activities. This job is being handled by Publicity Chair, Bob Tracinski of Deere & Co.
2. Working on a committee of the American Society for Testing and Materials to develop standards pertaining to playing surfaces of recreational fields. Dr. Minner heads the effort at the national level and is assisted by Steve Wightman for baseball fields and Dale Hansen, Kramer Sports Surfaces, for artificial surfaces.

Let me close by encouraging your involvement in STMA because it is nothing without you. With the support of our board, our chapters, and you, our members, there is no reason 1992 can't be our best yet!

EXECUTIVE DIRECTOR APPLICANTS SOUGHT

The Executive Board of the STMA is accepting applications for the position of executive director. The 1,000-member organization is seeking an individual to handle day-to-day operations, membership services, and chapter relations.

The board hopes to hire the new executive director by June 1, 1992. Dale Keller, who filled the position for the past two years, tendered his resignation in January. Dr. Kent Kurtz, professor of horticulture at Cal Poly University in Pomona, was the group's first executive director.

"The future of STMA is extremely bright," states Greg Petry, superintendent of parks in Waukegan, IL, and president-elect of STMA. "The development of chapters has created a wealth of potential members and increased the importance of the national organization greatly. The input of chapter representatives is resulting in important changes in the national."

Steve Cockerham, director of agricultural operations at the University of California in Riverside, is chairman of the search committee. "The primary duties of the executive director will be to help the organization grow, coordinate the regional institutes, workshop, and national conference, and assist about ten chapters," he stated. "Considering that STMA has a potential membership in the tens of thousands, we need someone with association management experience who understands the turf industry." Applicants should contact Cockerham at (714) 787-5906. ❑

COMING STMA EVENTS

Florida Chapter STMA Bi-Monthly Meeting, week of March 23, Florida International University, Miami, FL. Contact: John Mascaro, (305) 938-7477.

Florida Chapter Workshop, May 11-12, Tallahassee, FL. Contact: Ed Birch, (305) 928-0217.

Chesapeake Chapter Quarterly Meeting, June 3, University of Maryland, College Park, MD. Contact: (301) 808-3966

California Sports Turf Institute, June 1992, Santa Anita Race Track, Arcadia, CA. Contact: Stephen Guise, (818) 574-6378.

Colorado Sports Turf Institute, June 17, U.S. Air Force Academy, Colorado Springs, CO. Contact: Bill Whirty, City of Fort Collins, (303) 221-6660.

Midwest Sports Turf Institute, June 24, Wheaton College, Wheaton, IL. Contact: Greg Petry, Waukegan Park District, (708) 244-7275.

South Carolina Sports Turf Institute, June 26, Greenville, SC. Contact: Bucky Trotter, (803) 862-3071.

Colorado Chapter STMA Annual Golf Tournament, July 1992. Contact: Tom Lujan, Mile High Stadium, (303) 458-4851.

Northwest Sports Turf Institute, July 9, University of Portland, Portland, OR. Contact: STMA, (702) 739-8052.

STMA Profile-

On Time And On Budget

By Steve and Suz Trusty

St. Louis University renovated existing park land to create the Billiken Sports Complex.

Renting off-campus space for team play was not an ideal situation for St. Louis University, St. Louis, MO. When arrangements were made with the city to combine existing park land with university property in an on-campus sports complex, the university welcomed the opportunity. As it turned out, "complex" was the right word to describe the conversion.

The Billiken Sports Complex project was coordinated by the Construction and Engineering Departments of St. Louis University. Richard (Rich) T. Moffitt, superintendent of Grounds and Facilities Services for the university, was called upon to help develop the turf fields. He describes the experience as fast-paced learning. A member of both the national Sports Turf Managers Association and the Midwest Chapter, Moffitt credits the advice and assistance offered by fellow STMA members as instrumental in achieving the desired results.

"STMA members, those I knew and many I had never met, were willing to spend time on the phone to help," Moffitt says. "They shared their experience from working under similar circumstances and even revealed some of their 'private secrets' to help bring the project in on time and within budget."

The Billiken Sports Complex serves both the Athletic Department, (the university's Division I field hockey, baseball and softball teams), and the Recreation Department (men's, women's, and coed intramural teams, and faculty and staff use). In addition, according to the terms of the agreement between the university and the city, the complex will be made available to certain city special interest groups.

The Billiken Sports Complex is a $5.5-million facility. In addition to the fields, it is a complete complex with seating (2,400 at the soccer fields alone), concessions, first aid station, athlete locker areas, training rooms, and storage space.

"We've developed a rather unique situation," says Moffitt. "We have approximately four acres of synthetic surface soccer fields, the largest continuous synthetic surface in the United States, next door to 3.56 acres of baseball and softball fields on natural turf. We'll be able to compare the synthetic and the natural fields, side-by-side."

Moffitt is understandably proud of the soccer fields. With a polygrass surface and 12-inch gravel base, the drainage is excellent. Three inches of water should clear from the fields within 10 minutes, leaving the surface ready for play.

Overseeing The Project

Work on the Billiken Sports Complex turf fields took place over the last two years, with the major construction occurring in the summer of 1991, Moffitt says. "We wanted to have the fields ready for Division I play by spring of 1992, but the Athletic Department really wanted to have access to them for fall

In St. Louis

practice in August. My biggest challenge as a horticulturist was the development of the grass fields in the heat of summer."

Moffitt has a knack for seeing the big picture and pulling the pieces together to make things work. Three different entities were involved in the development of the complex. Integrating Facilities Services, the Athletic Department and the Recreation Department in a manner that will be sustainable by the Grounds Department was no simple task. Each entity has similar yet different needs and concerns. Making sure these groups understood the various needs and keeping the groups working together was a major part of Moffitt's job.

Moffitt credits the project's success to "good internal relationship" between the departments and the desire of all involved to end up with an excellent facility. He calls working together the key.

It's not at all surprising that Moffitt also comments on the positive effects of a good working relationship with his suppliers and contractors.

Outdoor Equipment Company was the primary supplier for the Billiken Sports Complex. "We worked very well together," Moffitt says.

Even with excellent cooperation, he says, "this project wouldn't have happened if my grounds staff hadn't been top of the line. Everyone pulled together. Many staff members went beyond the call of duty to get things done. Barry Roberts especially stood out with his extra effort in installing the warning track, doing the dirt work preparation, and working on the overseeding."

Moffitt came into the project nine months after its start; a situation he calls a major disadvantage. The first contractor was not skilled in athletic field preparation, and it showed. The results at the end of 1990 were definitely not up to Division I standards. Starting in April 1991, the original turf was stripped and two inches of topsoil removed from the six inches the first contractor had brought in. Even then, considerable hand work was needed to remove the rocks from the remaining soil before the project could proceed.

Once Moffitt came in, he took control. "You need complete control of a project like this from day one," he says. "And you need someone with sports field experience. We spent a lot of time and money redoing things that shouldn't have been done."

As always, there were budget limitations. "Working for the results we wanted on the complex was a challenge because we didn't have an extraordinary amount of money to develop it," says Moffitt. Equipment for the project was funded from

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Topsoil installed by one contractor was removed and a new seed bed was prepared.

Moffitt Profile

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the start. More money is still needed for personnel and supplies to maintain the sports complex.

Moffitt has one full-time mechanic and seven full-time personnel involved with the campus grounds. Four to six groundskeepers are hired during the peak season, depending on the funds available. Three of these groundskeepers work full-time from March through October. Students make up the rest of the work force.

Along with the Grounds department, Moffitt manages the Traffic Department. This involves the movement and delivery of parcels and mail on and between the university's two campuses. Six full-time employees handle these tasks.

Moffitt contracted out much of the work on the turf fields. Professional Landscape Company handled the infield development. Schaeffer/Meyer Sod Company did the finish grade and the original seed and sod work. The grounds crew of the St. Louis Cardinals did the clay work, constructing the batting area, pitcher's mound and bullpens.

By the end of May, the new finish grade was completed and the first seeding made. Then, the contractor began infield development. Turface (calcined clay) and a topsoil/sand mix were used. Because the irrigation system (using Hunter I-40 heads and a Rain Bird ISC controller) had already been installed, a second finish grade of the area was necessary. Seasonal student employees were brought in to help with the infield finish in June.

Moffitt found establishing turf in the summer to be a challenge he doesn't recommend. "Don't try to develop a turf field during mid-summer in the Midwest. We had to overseed numerous times to augment the original sodding and seeding and to cut burning. The weather was not cooperative."

Initially, adequate water sources were also a problem. Provisions had not been made for the necessary two-inch, high-pressure line close enough to reach the skinned areas. Extra time and funds were needed to correct the situation.

Toward The Future

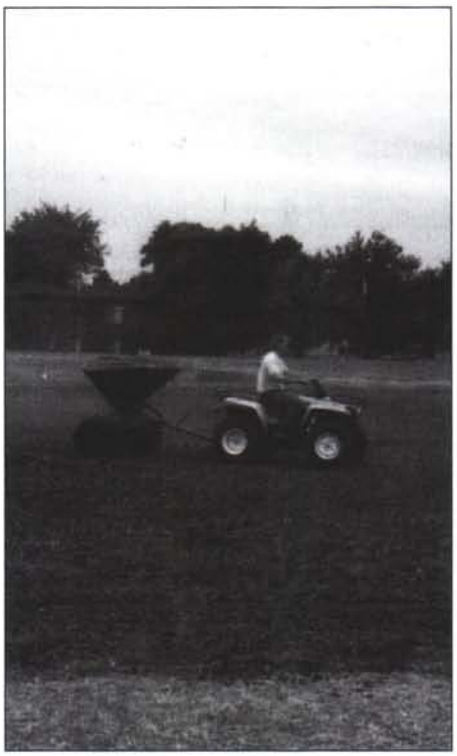
Despite the obstacles, Moffitt was able to offer the Athletic Department what he calls a "somewhat finished project" by August 15. An alumni game played on October 12 brought top reviews from the coaches and participants.

Still, Moffitt is not satisfied. "There's much room for improvement, things we want to work on and things that just take more time to develop. The parameters for a good field are usually two full growing seasons, but we were able to provide a playable surface in five months. Overall, the project was a challenging pain, but the end result was beautiful. Hard work does pay off."

Education Leads To Experience

Moffitt brings a solid background to his position. He earned his bachelor's degree in Agriculture with a Horticulture major from the University of Missouri at Columbia in 1980.

Immediately after graduation, he worked for a nursery as a landscape designer/supervisor. In 1981, he formed his own landscaping company to develop special projects. He still maintains the company, but he does not have the time to do much with it. For four years, Moffitt served as landscape director of the Jamestown Mall in St. Louis, in charge of both the exterior and interior plants.



Seeding during the summer presented an extra challenge.

In 1985, intrigued by the challenge, he joined the University of St. Louis in his current position.

There's not a great deal of published information on sports turf development, according to Moffitt. He started with golf course information and adapted it to his needs.

That's one reason he's so enthusiastic about STMA. "The main missions of STMA are tremendous," says Moffitt. "It's all important—the educational programs, the scholarship programs, the emphasis on safety and liability issues, and, most of all, the exchange of ideas and information. On both the national and regional levels, STMA works closely with university people on research and testing, and passes this information along to members. Regional learning through the Midwest Chapter has been vital. Through the chapters, members can interact with people in their own areas, those who have some common concerns, where the same timing of problems and controls apply."

"I don't want to be just another member," he says. "I want to become involved. I pick organizations that can help me and where I can be a help."

As well as STMA, Moffitt is a member of the National Parks and Grounds Institute, the St. Louis Chapter of the Professional Grounds Management Society, the Missouri Valley Turfgrass Association, and the Missouri Botanical Gardens. He is president of the newly formed Green Industry Council of Missouri, an organization "to further improve the quality of the natural and built landscape by uniting the components of the Green Industry." ❑

Mound Construction Fundamentals: From The Ground Up

In Major League baseball, great pitching mounds are like great plate umpires—the less you hear about them, the better they are. When the majority of pitchers don't comment about the conditions of either an ump or a mound, you know you have a winner. And, given the proper construction techniques and care, even the most humble field can have a winning mound.

Ed Mangan, field director for the 1991 National League Champion Atlanta Braves, *knows* mounds. He has built hundreds over his career, and at the ripe old age of 32, is likely to build thousands before he hangs up his rake and tamp. His successful mound-building procedures and tips can be applied to baseball diamonds at all levels.

Position And Measurement

The Major League rules for field preparation stipulate that the front of the pitching rubber must be 60 feet, six inches from the back of home plate. Assuming that home plate is established (and it usually should be before you start building a pitcher's mound), Mangan starts by measuring that 60-foot-six-inch distance, *straight* back toward center field. When he reaches that spot, he drives a stake to mark the position of the pitching rubber. At this time, he also makes a mark exactly 10 inches up the stake that corresponds, measured either by triangulation or another method, with a 10-inch height off home plate. This will come into play when he builds the mound.

The next step is creating a circle from the center point of the mound. "A mound usually has a nine-foot radius," Mangan says. "The center of your mound must be 18 inches in front of the pitching rubber. Once you find the center, you take a tape measure and run it out [away from the center] to create a radius, and use it to make a circle in the dirt."

Building The Dome

The next step is selecting a mound mix and shaping it into a dome. Choosing the right mix is crucial for field playability under various weather conditions.

"Some people go with a sticky, heavy clay, but I don't recommend it," explains Mangan. "In a rain situation, it can become very slick and oily. There are a lot of mound mixes out there. What you want to do is find one that is right for the conditions in your area."

Budget can be a factor—your facility may not have the money to buy a special mound mix. In this situation, Mangan suggests creating your own mix from native soils.

"If that's the case, use the best mix you can come up with yourself," he says. "It needs to be heavy enough to that it can be packed and withstand traffic, but not so heavy that the slightest bit of rain makes it slippery."

When you begin to build your dome, Mangan advises applying the mound mix two to three inches at a time. It doesn't require tamping at this point, but does need to be packed firmly.

After the dome reaches the 10-inch mark on the stake, you can begin to prepare your "table," the top, flat portion of the mound, using a three- to four-foot level, rakes, shovels and tamps. The table is usually five-feet-wide. It starts six inches in front of the rubber, extends 22 inches behind it, and is 18 inches on either side of it.

"Once the table is set up and you've made the basic dome shape, start working the clay with tamps and rakes to make your slopes," says Mangan.

"The moisture content of the clay has to be right—too dry and it won't pack, too wet and it's a slippery mess."

Major League rules require the front slope of the mound to begin six inches in front of the pitching rubber. "You want the slope to fall one inch per foot," Mangan advises. "In the back and along the sides, you want the slope to go, on an even grade, to the edge of your circle."

Setting the pitching rubber follows.

Mangan removes a few inches of the mound mix to set the rubber in place. He fills the hollow tube that holds the rubber down with a special heavy clay, which he also uses to pack it in place.

"The rubber has to be leveled from side to side and front to back," says Mangan. "You definitely want to get everything ready before you set the rubber in place, because if you set it too early, and then find that your table needs to come up an inch, you'll have to pull it out," he says.

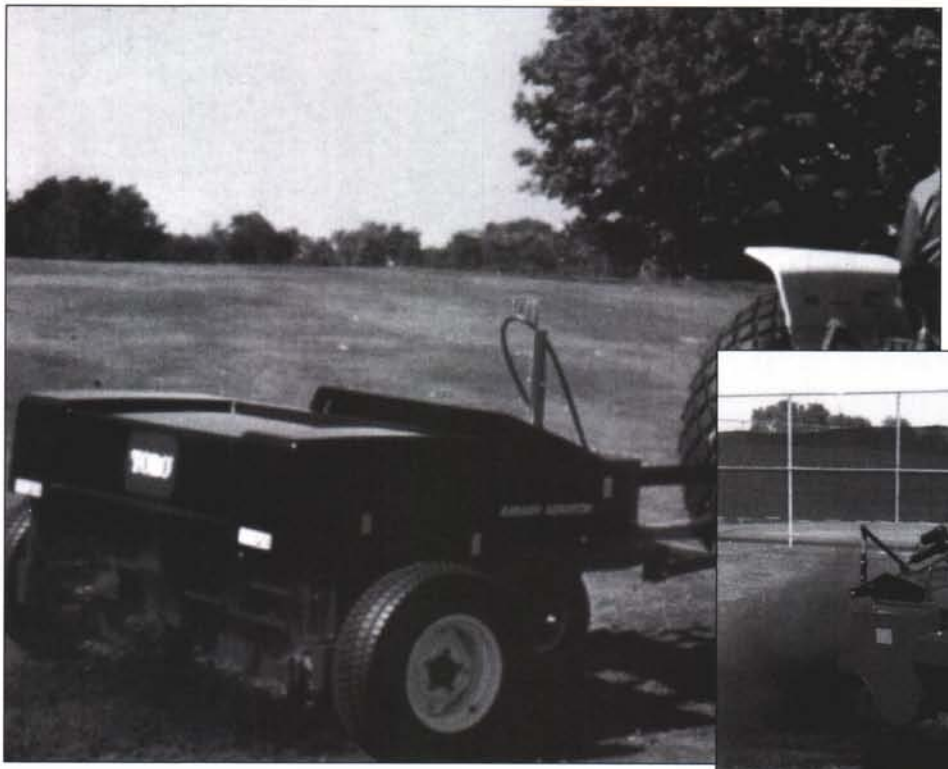
Mangan's next step in mound construction is beefing up the "takeoff" and "landing" areas for the pitcher. The best way to envision this procedure, he says, is to picture a "T," with the bottom of the letter beginning at the front of the rubber and the top part of the letter finishing four to five feet toward home plate. He excavates this T-shaped area to a depth of two to three inches and replaces the basic mound mix with a heavy clay mix.

The reasoning behind the inverted T-shape excavation is that while both right- and left-handed pitchers plant their throwing foot in the center portion of the mound, just in front of the rubber, they land several feet down either side of the front slope. The T-shaped clay replacement provides durability for these high-traffic areas. While this heavy-clay area could be prone to slickness during wet weather, it is a small portion of the total mound area and presents no major maintenance headache. Different drying materials can be used to treat these areas during periods of rain, says Mangan.

That final step is grooming and smoothing the mound. "You can't let the clay get too hard, or the pitchers won't be able to dig their spikes into it, and they'll skid," he says. "It has to be soft enough for the spikes to penetrate, but hard enough so they can get a good push. If it's too soft, the mound will deteriorate and become a problem for the pitchers during the game."

"The pitchers will change the mound during a game once they start walking around on it," he adds. "You must allow the pitcher to become comfortable with your mound, rather than having to fight with it. Each pitcher will have slightly different needs. You want to concentrate on keeping it as consistent as possible."

Adds Mangan, "A lot of people forget this, but you've got to keep the moisture in your mound. Whenever it's not in use, cover it." ❑



To help renovate turf in the spring, core aerate, seed and topdress.

Spring Help for Turf

By Holly Gibson

The first days of spring are a rallying call to every Jose Canseco-wanna-be or Olympic-oughta-be. Just like armchair athletes find that winter has left them with some rough (and soft) spots, athletic fields suffer similar fates.

As the weather warms, athletic field managers have little time to waste as they try to establish healthy turf that will maintain a high-quality playing surface through countless softball, baseball, soccer and rugby matches. A combination of seeding, core cultivation and topdressing can be the prescription for improving density and root growth on weak to moderate turf fields.

Turf in the winter is not immune to compaction problems. The turfgrass plant, especially the crown, is vulnerable to damage when feet or vehicles trample frozen or partially frozen ground. During the early spring, turf and soil tend to be wetter than normal, says Dr. Jim Watson, vice president, The Toro Company. The soil compacts easily. Vehicles can leave ruts and feet can leave footprints.

Early morning frost, which is typical in the spring, presents special problems. The frost consists of sharp, needle-