Handling Unwanted Water

continued from page 11

in the field. Calcined clays can absorb their weight — even a bit more than their weight — in water. The primary benefits are compaction control and moisture control, in both cool and warm climates.

"We used a number of products to control moisture — Turface, Terragreen and Diamond Dry, which is a corn-husk byproduct used for skinned area drying," says Wightman. "We use a tremendous amount of calcined clay for building our infield. If we had no rain at all, we would still use 25 tons of it. We also spot-apply calcined clay if we have puddling."

Wightman refers to two of the three most common ways of applying calcined clay products:

- Incorporation into the infield skinned area mix before or during construction. Adding calcined clays enables the mix to handle excess moisture.
- Incorporation into turf areas through topdressing following aeration. Calcined clays increase soil porosity, which in turn reduces compaction that leads to drainage problems.
- Spot-application into puddles. Calcined clay can be used to "dry up" puddles through spot-application. However, when using calcined clay products to control puddles, it is suggested to restrict use to shallow puddles, in most cases no more than 2 inches deep.

Deep, large puddles often demand mechanical water removal. This can be accomplished through using pumps; however, most athletic field puddles aren't large or deep enough to justify conventional pump use. There are mechanical products manufactured specifically for this purpose.

Tarps are a physical, preventative tool for handling moisture on athletic fields. Their selection is critical to successful implementation. Tarp manufacturers will gladly assist you with finding the right size, shape and color tarp. Wightman offers a few basic suggestions to consider before you set out to buy.

"Color and weight are important," he explains. "In the southern regions of the country, where you don't have as much ice or snow, a lighter material, say 7 ounces per square yard, would be suitable. But in the colder regions of the country you might need something in the 14 ounce per square yard range. And always consider handling and manpower — how you're go deal with tarp."

To address tarp handling, Wightman holds "tarp practice" on a couple of Saturdays before the Padres begin their season. Wightman and his crew spend about four hours on these days going over tarp procedures, including unrolling, covering the field, removing water from the tarp and rolling it back into the wall. These practice sessions are particularly important to the Jack Murphy Stadium grounds crew, since they don't have enough personnel to move the tarps on game days and must enlist stadium workers, who often have no tarp-moving experience, to help. When the tarp is actually brought out to cover the field, regular grounds crew members are interspersed between stadium workers to provide guidance during the process.

Tarp color, says Wightman, is critical. "Remember, the darker the tarp, the hotter it gets underneath," he asserts. "With a dark tarp on a hot day, 15 or 20 minutes on the grass may be all it takes to burn the grass blades, whereas it might take a lot longer with a light-colored tarp."

In tarp application, timing is crucial. A wet tarp can weigh as much as 50 percent more than a dry tarp. The easiest way to apply a tarp, suggests Wightman, is to surround it on all four sides and keep "pumping" air under it as you move.

"Try to get the tarp on the field in about 60 seconds," says Wightman. "In a heavy rain, if it takes much longer than a minute or a minute and a half, you may not be able to get the rest of the tarp unfolded. In a downpour, you're going to be lucky to get it on the field."

Timing means not only being prepared to use tarps, but also having a good idea of what kind of weather is coming your way and when it will arrive. The National Weather Service, as previously mentioned, is the most accurate and cooperative source of this data and is more than willing to supply information to turf managers, from those who manage professional baseball diamonds to those who work on high school gridirons.

While calcined clays, tarps and mechanical devices are effective tools for controlling and removing excess water on athletic fields, Wightman emphasizes that they are by no means replacements for sound, consistent cultural practices.

"Make sure your field is set up to deal with rainfall," he concludes. "Most turf managers don't have the budget for a $10,000 tarp. Money spent on regular and proper core aeration, topdressing, periodic dethatching, mowing and fertilizing will go a long way toward preparing your field for rainfall, as well as keeping it healthy." ❑

Subsurface drainage, installed during field construction or retrofitted, combined with properly designed and constructed soil profile, is the key to turf health, as well as most water "ponding" problems. Photo courtesy: Cambridge Sportsturf Drainage Inc.

CHEMICAL LOG

PGRs: More Than Chemical Mowing

Plant growth regulators (PGRs) are probably the least used and understood tools in sports turf management.

Even though some growth regulators to caution against applications to high-traffic turf areas, golf courses are now major users of the newer PGR products on the market. This new generation includes Ciba-Geigy's Primo, DowElanco's Cutlass, PBI/Gordon's Embark Lite and Scott's TGR Turf Enhancer. Together, they cover a variety of golf turf applications: reduction of vertical growth and clippings on greens, tees and fairways; less frequent mowing of roughs; and *Poa annua* seedhead control or elimination.

As for sports turf applications, there are novel uses, such as adding plant growth regulators to field-striping paint mixtures to slow the removal of markings through mowing. The use of a growth regulator to suppress existing turf and postpone mowings for three or four weeks to allow newly seeded areas to establish faster and better is another example.

An easily instituted practice that can save many hours of hard labor is to apply a PGR after string trimming. Treated edges along fences and walkways and around signs, trees or landscape beds require trimming only one-third as often, according to Mel Crudge, park superintendent for the city of LaVerne, CA. Spraying such trimmed edges with Embark, as Crudge typically does twice in the spring and once in the fall, holds them for an interval of six weeks instead of two.

Many sports turf managers are also responsible for some nonathletic and ornamental turf areas. Using a PGR to reduce mowing labor and clippings volume on these low-traffic areas may be a good place to begin. Vertical growth of treated grass can be reduced by 50 percent or more for four to six weeks or longer, depending on the product and dosage used. The result is reduced mowing and increased time-savings.

Seedhead development can be inhibited by applying PGR prior to seedhead formation (up to four to six weeks after initial green-up in Kentucky bluegrass or tall fescue). Energy that would otherwise be used in developing seeds and stems remains in the roots instead. This deeper, stronger root mass helps account for the "rebound effect" or flush of growth and tillering that occur with some products as the PGR wears off.

Not all the aforementioned uses are advisable or permitted with all of the products mentioned. As with any chemical, it is important to carefully read the product label and follow directions for use.

Technical Credit: PBI/Gordon Corp.

STMA PROFILE:

Creative Financing Pays Off at Mundelein High

Scott Gaunky (left) at Chicago's Wrigley Field with groundskeeper Roger O'Conner in April 1993.

A 90-by-90-foot turf cover is used to get the field ready for its late-March opening.

By Bob Tracinski

What do you do when your high school's baseball diamond has had no major field work for eight years? When the infield looks like a saucer surrounded by raised skinned areas? When balls pop up at the grass lip, blowing the athlete's chance for a play? When other schools mutter about your playing field? And when the already-stressed budget means no reconstruction funds for yet another year?

If you're Scott Gaunky, you tackle the problem head-on.

Gaunky, grounds foreman of Mundelein High School in Mundelein, IL, instigated a campaign to generate communitywide contributions for field reconstruction. And, with enthusiasm, thorough planning and plenty of hard work, he pulled it off. The Mundelein Mustangs' baseball field is now a source of community pride.

The route to opportunity is seldom well-paved. Gaunky entered the sports turf field through the back door. He initially worked as a carpenter. When the building trade slowed in the late 1970s, he took a position with the Park District, working three years on grounds and sports fields. Gaunky "got hooked" on sports turf and took a turf management course to expand his knowledge.

When his alma mater, Mundelein High School, opened the position of grounds foreman, Gaunky was ready to step into the job. He started as a one-man crew with a pickup truck and a tractor. Gaunky alone was responsible for 22 acres of grounds, including three soccer fields, two baseball fields, and the stadium complex for football, soccer and track, as well as all trees and plant materials on the site. At the time he took over, there were no turf programs developed beyond basic mowing and fertilization.

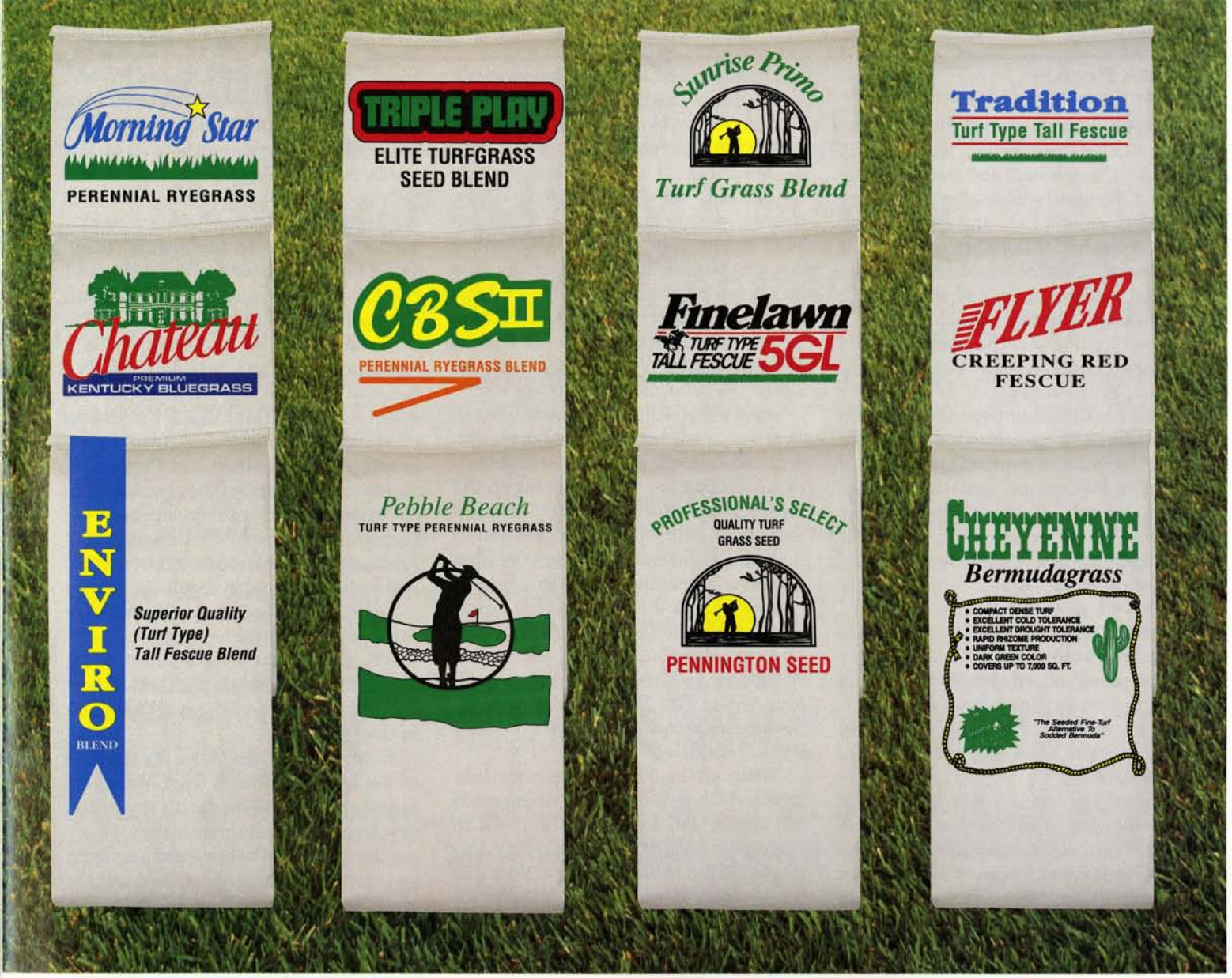
Gaunky knew immediately that there was a lot of room for improvement at Mundelein High. One by one, he attacked the problems. He passed the state licensing test for spraying. (Illinois has 17 categories of sprayer licensing.) He worked toward establishing a basic turf and plant care program. And he paid extra attention to sports turf, which had become something of a passion for him.

"This may sound a little corny," says Gaunky, "but I feel that the administration, coaches, parents and grounds care department all owe it to the student athletes to provide a safe place to play. My school and its athletic program supply players that have the potential to become college, and even pro level, athletes. What happens to the student athletes here will have an effect on the rest of their lives. We can't take a chance that some lack of attention to field safety could contribute to an injury that might eliminate future possibilities."

To further his turf management goals, Gaunky solicited advice and technical assistance from experts in the Chicago area. He's met and talked with some of the best, including Greg Petry of the Waukegan Park District, Ken Mrock of the Chicago Bears and Roger Bossard of Comiskey Park. With their input, he laid the groundwork for a superior turf program.

"I attended a seminar at Old Comiskey Park," he recalls. "When Roger [Bossard] explained the construction and maintenance details of the new field, I knew what I wanted as the pattern for our varsity baseball field. Roger introduced me

continued on page 16



Our Reputation Is In The Bag...

PENNINGTON®

And so is yours! That's why neither of us can take a chance on quality. Think of it as a partnership where our reputations grow together. We'll sell you the finest quality seed in America, backed with all our experience and expertise—you grow a beautiful turf—and everybody wins. For information on our varieties and blends, just contact us for the nearest distributor from our nationwide distributor network.

1-800-277-1412

ask for Catherine

STMA Profile

continued from page 14

to Dave Cygon [now with Pro's Choice] from Aimcor Corporation, the company holding the seminar and the manufacturer of Turface. I explained what we were trying to accomplish, and he agreed to donate one-half of the 22 tons of Turface we'd need." Turface was used under the sodded outfield area and mixed with sand for the skinned infield surface.

Gaunky laid out the plans for field reconstruction, worked out cost estimates, and considered preliminary approaches to solicit materials, funds and labor. He initially asked for "a written committment, a confirmation that if the plan took shape, assistance would come through." Realizing his plan was feasible, he approached school administrators and set up a meeting with them.

"I went in prepared to answer questions — I sure didn't plan to fail," he recalls. "After the meeting, the administration decided to take the matter to the school board. I'm sure it didn't hurt that one member of the board was an umpire. Anyway, the board approved the plan and things really started rolling."

Gaunky worked out a letter with then acting superintendent of Mundelein High School, John Schockmel (now the school's assistant superintendent for business). The letter was sent to big businesses in the area to solicit funds and donations.

"This was a total community effort," says Gaunky. "Everybody got behind it. The American Legion Post that uses the field for summer leagues donated money. Pepsi came through with a new scoreboard. The baseball parents Booster Association donated $4,000. And, when the time came, they, the players, and even superintendent Schockmel showed up to help lay the sod.

"Deak Sod Farms of Union Grove, WI, donated over one-half of 3,000 yards of sod for the field," he adds. "We bought the rest from them."

The old sod was removed and the field was leveled. To establish an effective drainage system, they installed 1,000 feet of drain tiles.

"We laid 6-inch tiles along the arc and back edge of the field, connecting to the main drain," Gaunky explains. "We put 4-inch tiles under each player's position and each base. We ended up raising home plate by 6 inches. The area between home plate and the pitcher's mound were 17 inches below grade — third base, 24 inches below grade.

"There were two construction companies in the area handling large projects," he continues. "I asked the managers to donate fill. Town and Country Development donated all the black dirt. They hauled sand to the site where the dirt was being screened and trucked the mix over to the field at no charge. Cambridge Country Construction, Richard Brown Development, donated 14 loads of fill for the rought. We leveled that and then added the sand, soil and Turface mix."

Dave Frost of James Landscaping in Mundelein made the grade — literally. A Mundelein High alumnus, he donated his equipment and crews for all the rough grade work. He even brought them in to help with finish grading.

Additional donations came from First American Bank-Mundelein, Don Michaels of Lake-Cook Farm Supply, Legat Architects, MacClean-Fogg Company, Midwest Horizon, Mofat Construction Company, Mundelein Disposal, Mundelein Fire Fighters Association, Medline Industries Inc., and New Century Bank, Mundelein.

"With all the donations of materials, time and labor. We had everything ready for laying sod by the third week in November," Gaunky recalls. "So many people pitched in to get that sod down that we managed to wrap things up before the weather turned nasty."

The work was completed in the spring of 1991. The field has been maintained at near-pro level, says Gaunky, and last year they reworked one of the lower level fields. The Boosters are working toward putting up lights on the main field. They've also chipped in to upgrade the training room for the trainer, and even built him a customized golf cart painted in Mundelein High School colors. Community spirit keeps moving things along.

"John Schockmel pays special attention to the look of the grounds," says Gaunky. "He'll work with us to find the funds to do what it takes to keep the fields in shape."

Gaunky now has additional help with grounds care. He's also added equipment to his inventory.

The turf care program has a complete fertilization program, based on annual soil tests. Gaunky will add tissue analysis this year, through a special research program put together by Dr. Hank Wilkinson of the University of Illinois. Samples go to Wilkinson, marked by the numbers of the fields. Results are faxed back within 36 hours.

Gaunky uses a slicing aerator on the fields during the playing season. He follows up with core aeration. For example, the football/soccer field is core aerated eight times in the spring, three times in midsummer and eight times in the fall. The cores are broken up and dragged into the soil profile.

Overseeding for the stadium field incorporates a special blend of five Kentucy bluegrass and two perennial ryegrass varieties (Midnight, Columbia, Challenger, Merit and Touchdown bluegrasses — Manhattan and Citation II perennial ryegrasses). The practice fields are overseeded with a commercial sports turf seed mixture of Victa and Abbey Kentucky bluegrasses and Loretta and Accolade perennial ryegrasses.

Gaunky has also added a 90-by-90-foot turf cover. The cover helps get the baseball field ready for its late-March opening and can be used on the football/soccer field to speed seeding establishment in the fall.

In his "spare time," Gaunky is active in the Midwest Sports Turf Managers Association. He helped with the initial development of the organization, including the shaping of bylaws, and serves on its board. His reconstructed field was the site of the Midwest Chapter's third official meeting, a hands-on demonstration that drew 140 attendees. In addition to his Midwest STMA affiliation, Gaunky is an active member of the national STMA. He also recently served as an adviser for a 188-acre soccer complex in Libertyville, IL.

During the Midwest Chapter's third official meeting, Gaunky spoke on how the Mundelein community pulled together to make the field a source of local pride. The route to such opportunity remains, he observes. It just has to be taken.

"My experience speaks for itself," he says. "Anyone is welcome to come to my school and see what our community has been able to do. It isn't anything unusual. You just have to be dedicated and have determination. The technical resources, donations and help are all there, if you just go after them." ❑

Editor's note: Bob Tracinski is the manager of public relations for the John Deere Company in Raleigh, NC, and public relations chairman for the national Sports Turf Managers Association.

Sports Turf Manager's Association™

Attention STMA members and non-members:

Enter the STMA Member Referral Contest!

If you refer the most members, you will receive round-trip airfare and registration to STMA's 5th Annual Conference and Exhibition in Baltimore — **FREE**. If you are a resident of the Baltimore area, you will receive two free nights at the Marriott Hotel, headquarters for the conference, along with a free registration.

Entering is Easy!

To participate, simply refer new members (a minimum of three members is required). Be sure they mention who referred them when joining — to make things easier, the membership form on the following page has a sponsor line. Make a few copies with your name on it and pass them along -- if you are currently not a member, fill out this form and join today!

Contest progress reports will appear in future issues of *sportsTURF* and the July/August and September/October issues of *Sports Turf Manager Newsletter*. For more information and guidelines, contact STMA Headquarters at 312/644-6610.

Get Serious With STMA

Application for Membership

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

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

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

Member Information

Name _____

Title _____

Employer _____

Type of Business _____

Address _____

City _____ State _____ Zip _____

Phone _____ Fax _____

Signature _____

Referred by _____

Membership Category *(please check one)*

❑ Professional sports turf facility manager	$75
❑ Additional members from same facility	$45
❑ Four-year colleges and universities	$75
❑ Additional members from same facility	$45
❑ Other schools, parks, ext. agents, municipal	$50
❑ Additional members from same facility	$30
❑ Student	$20
❑ Commercial affiliate (U.S. or International)	$150
❑ Additional members from same company	$30
❑ International other than commercial affiliate (must be in U.S. dollars)	$50
Total amount enclosed	$_____

Please enclose payment (check or money order) and send to:

Sports Turf Managers Association
PO Box 809119
Chicago, IL 60680-9119

For more information, contact STMA Headquarters at 312/644-6610

"Promoting Better and Safer Sports Turf Areas"

Frequent aeration and topdressing will go a long way toward relieving compaction, one of the primary causes of badly worn areas on athletic fields.

Spot Management:

Keeping High-Use Areas in Play

By Bill Whirty

There it is for everyone to see, an obvious problem — the badly worn soccer goal mouth, the left fielder's digging spot from a rainy afternoon, or the line receivers run in practice every day. It mars the aesthetic beauty and playability of a field — it's a point we all hope our turf never reaches. But as sport turf managers, it's a threat we must deal with every season.

How we plan for these occasions and the preventive maintenance programs we develop for these troubled turf areas is the first step in avoiding major damage and keeping the field in playable shape.

Observe

Start by taking inventory of your fields, noting especially those areas that are most susceptible to problems. Unfortunately, as we've all discovered, no two areas are exactly the same, nor do they respond the same. Gather clues to assist in building a program that will keep fields playable.

The best way to manage heavy-use areas is not by replenishing the turf with seed or sod but through proper management to minimize wear. That's easy to say, but difficult to do, especially given the schedules some fields must support.

Use your powers of observation. What soil types lurk beneath the worn spots? Are they allowing good root growth? Does the soil tie up certain nutrients so the turf can't use them? Is the compaction so bad that irrigation is ineffective? Any or all of these problems are likely culprits.

Many of us work with heavy soils, compacted by years of play. Aeration is one strong answer to heavy-use problems. Deep aeration, 7 to 10 inches down, as much as monthly in severe situations, will help the turf more than any other single management practice!

Be careful, however, not to aerate on hot, high evapotranspiration (ET_0) days, as this can severely stress the turf. (ET_0 is the amount of evapotranspiration caused by weather factors combined with the transpiration rate of the given plant.)

Even in a field area that is suffering from all the traffic it receives, soils tests will supply the information on which to build a fertilization program that meets the turf needs. Take soil samples from various sites within each field for testing. Make sure to flag the samples from the problem spots so that you can match the test results with the proper area. You may also wish to add tissue analysis on turf that suffers persistent problems or fails to respond as expected.

Base your fertilization program on these test results, varying the timing and amount of nutrients to meet the specific needs of each area. Supplement your program with an extra application of potassium, as this increases the wear tolerance of the turf.

Make sure you're growing the right grass for heavy-use spots. Make a positive identification of all plant material. Since each grass variety, and the individual cultivars within a variety, have their own strengths and weaknesses, some problems can be alleviated by adding or changing over to a different turf.

Cool-season turf fields are generally Kentucky bluegrass, often overseeded with perennial ryegrass. Turf-type tall fescue also makes a good playing surface, especially for soccer. However, because the blade difference stands out strongly if turf-type tall fescue is overseeded with perennial ryegrass, overseed fescue with fescue.

Both turf-type tall fescue and perennial ryegrass pregerminate well. The pregerminated seed can be mixed with a topdressing material and applied at regular intervals during the season. The newly seeded turf can be up and growing within a week. Seed is an inexpensive investment compared to what a turf manager can gain in keeping heavy-use spots healthy.

Plan field layout to avoid excessive wear. Though few options are available for baseball fields, there are ways to rotate use on soccer and football practice fields. Investigate ways to move wear around. For example, if adequate space exists at the end of the field, you may be able to shift the entire playing surface 10 to 30 yards in both lengthwise field directions. This spreads wear over three spots, rather than one. Renovate the original worn field while the heavy-use location is rotated to another portion of the field.

Whenever possible, work with park planners and school district consultants to be a part of the solution that allows the facility to be used at its designed capacity.

Keeping turf healthy turf in heavy-use and high-traffic areas is among the toughest challenges you face as a turf manager. Making it work — keeping the field safe and playable — will bring you the satisfaction you deserve. ❑

Editor's note: Bill Whirty is the city park supervisor for Fort Collins, CO, and active member of both the national Sports Turf Managers Association and the Colorado Chapter STMA.

PRESIDENT'S MESSAGE

Sports Turf Managers Association

By Gil Landry Jr.

The development of professional relationships or networking can and should be one of the more rewarding aspects of association membership. It is natural for individuals to share personal experiences, and most professionals enjoy sharing their views of turfgrass management. In fact, I feel this sharing is one of the best services an association can facilitate.

Many of the professional turf managers I have had the good fortune to work with will visit regularly with their professional associates to compare growing conditions, to get another opinion on some article, to ask their opinion of some new product or technique, and so on. Sports Turf Managers Association encourages networking like most associations do.

STMA members recently received one of the association's best networking tools, our *STMA 1993-94 Membership Roster & Resource Manual.* This manual represents an important forum for information exchange throughout the country. Together, members can learn, grow, and increase the knowledge and scope of our rapidly expanding profession.

About three years ago, U.S. cities with synthetic turf fields that wanted to bid for the 1994 World Cup soccer championship tournament realized they had to figure out how to apply natural grass over synthetic turf if they hosted the event. One result of this dilemma is the development of a patent on "transportable natural turfgrass playing surfaces," called Integrated Turf Management by The Greenway Group in Horsham, PA. Turf grown in transportable modules was installed in the Silverdome in Detroit with the assistance of Michigan State University.

Two of the parties involved in this state-of-the-art process. Dr. Henry Indyk of the Greenway Group and Dr. Trey Rogers of Michigan State University will be sharing their experiences on these systems with STMA at our annual conference and exhibition November 7-9, in Baltimore. What a great opportunity to hear about this new technology! Obviously, there will be many other educational opportunities, tours and exhibits at the conference. Look for more information in future issues of *sportsTURF*, or call STMA headquarters at (312) 644-6610.

STMA Chapter News

Florida Chapter #1, STMA: The International Turfgrass Society Research Conference will take place July 18-24 in Palm Beach, FL, with headquarters at the Breakers Hotel.

Sports turf managers are encouraged to attend the July 23 symposium "Quantification of Surface Characteristics of Sports Fields," which will be chaired by Dr. D.V. Waddington of Penn State University. Scheduled sessions are as follows:

8:25 - 8:30 a.m. — Introduction and announcements by Dr. Waddington.

8:30 - 9:10 a.m. — "Concepts of Playing Quality: Criteria and Measurements," by S.W. Baker and P.M. Canaway, Sports Turf Research Institute.

9:10 - 9:50 a.m. — "Alteration of Sports Field Characteristics Using Management Practices," by S.T. Cockerham, V.A. Gibeault and R.A. Khan, University of California.

10 - 10:40 a.m. — "Soil and Turf Properties Governing Playing Quality," by P.M. Canaway and S.W. Baker, Sports Turf Research Institute.

10:40 - 11:20 a.m. — "A Multivariate Risk Analysis of Natural Grass and AstroTurf Playing Surfaces in the National Football League, 1980-1989 —an Epidemiological Study of Ankle Injuries," by J.S. Powell and M. Schootman, University of Iowa.

11:20 - Noon — "Playing Quality, Performance and Cost-Effectivenes of Soccer Pitches in the UK," by R.J. Gibbs, NZ Turf Culture Institute, W.A. Adams, University College of Wales, and S.W. Baker, Sports Turf Research Institute.

1:30 p.m. - 2:10 p.m. — "A National Approach to the Performance Testing of Cricket Grounds and Lawn Bowling Greens," by K.W. McAuliffe and R.J. Gibbs, NZ Turf Culture Institute.

2:10 - 2:50 p.m. — "Present Status of Quantification of Sports Turf Surface Characteristics in North America," by