Yeiser has served the University in his current position since 1982, overseeing the expansion from approximately 20 acres of athletic facilities to the current 100 acres. He says, "I've always been a big believer in the national Sport Turf Managers Association and our regional KAFMO Chapter of STMA. Being able to network and discuss the challenges and the ideas on how to solve them is a real key to raising the standards of field quality at all levels. We also have a good relationship with Penn State University and their extension personnel and use their knowledge and expertise. We're notorious for borrowing an idea that works for others. We're always looking for things that have been successful at other facilities to incorporate into our program. Since we can see the success of their results, we don't expect a lot of failures."

They've borrowed the idea of using crumb rubber in that 2-1/2-foot swath along the sidelines where the linesmen run. Yeiser notes, "It seems to provide an extra cushion and help to protect the crown of the plant. We've also incorporated it in the goalmouths, combined with aerification and overseeding, to reduce wear. We do some pregermination of seed to speed turf development, making a patch mix with topsoil, our composted topdressing and the seed. If necessary toward the end of the season, we have replaced the sod in the goalmouths, sometimes using 8 x 8-foot sod panels. Last year, we contracted deep tine aeration to the 12 to 13-inch level, and found that beneficial to overall field condition."

Fertilization is based on soil test results, with the program primarily granular supplemented with liquids when needed. In 2000, they instituted a very late fertilization, making the application around Thanksgiving. That resulted in a nice green up in the spring and continues to be part of the program.

The field is lined for every game during the fall varsity season. In the spring, that drops back to approximately once per week. The field corners are pinned so it's relatively easy to run the strings for accurate lining.

Yeiser says, "Every year the College attempts to add or improve some aspect of the stadium in hopes of providing a memorable experience for everyone who has a chance to play here. Our staff is committed to making the field a little better each year as well. That's been the winning combination for our program."
Time-saving techniques

How many times have we heard that old saying? If you are like me, you never seem to have enough time when it comes to getting all of your jobs completed. When I get one job completed, two more pop up.

Here are some effective time-saving practices that can help complete your soccer pitch duties in record time:

- The best time-saving practice is to use "cheater points." Our cheater points are plastic anchors we drive into the ground. We have placed two sets of points to mark the corners of a soccer field and a football field. These points allow us to easily find the outer boundaries of each playing area.

- We also have a set of cheater points that gives us a center line on an east to west axis and a set to give us a center line which runs north and south. By having these two extra sets of cheater points, we can get the correct measurements for any size field. These points also come in handy when we have events that we typically don't host such as lacrosse, rugby, field hockey, and others.

- You can use anything as cheater points, the pre-made plastic anchors or an 8-inch metal spike with a washer on top. It is important to always make sure that you drive these objects deep enough into the ground to protect from injury and ensure that you don't hit it with a piece of equipment. You can save numerous man-hours over the course of a year when you have your fields pre-marked.

Painting

Painting on any field, including soccer, is a very important job. When we paint any field, we always string line the entire field to ensure that we have straight lines and to give the painter a guide to follow. The key to having straight lines is pulling the string line as tight as you can and then "popping" it. This is similar to what a carpenter does before they chalk a string line on wood.

If you have a loose line, you may have a string line that has a bow in it and when you pop the line, the line will fall untrue. If you have a bow in the line and the painter does not pay close attention, they will paint along the line, with the bow, and paint a crooked line.
Isn't it time you had the home team advantage?

Aeration tines are changing and so are aerating practices. More and more sports turf manager are discovering some remarkable improvements in their turf after adopting an extended aeration program. We offer versatility when it comes to aeration, with 4', 6' or 15' widths, three point hitch or tow-behind, along with your choice of five tines. (BA-600 Super-Ject 6' aerator pictured).

Bannerman topdressers are built to the highest engineering standards, hydraulically controlled to ensure uniformity and economy. We have a variety of sizes, from 1.5 cu. yd. to 7.5 cu. yd. and one to fit all your requirements. (BTD-20 Turf Topper pictured).

The B-SDS-4 Simple Dimple Seeder is ideal for thickening turf and filling in worn or bare spots. Surface disturbance is a thing of the past, along with shutting down a sportsfield for seeding. Featuring accurate and adjustable seed rates to meet the needs of all types of seed varieties.

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Maintaining the Grounds

When it comes to marking the field for play, soccer is unique in that there is no set field length or width.

The most frequently asked question from those who have not painted a soccer pitch is "How do you paint the circles?" I have learned two ways. The first is to have a person walk backwards and mark a line in the turf and then have the painter follow the marked line with the painter. This method is labor intensive, not to mention the fact that the person who draws the short straw and walks backwards tends to get a headache from the blood rushing to their head.

Another method is to have a pre-cut rope or chain that you attach on one end to a spike or nail at the center of the penalty dot and on the other end to your paint machine. The total length from the spike to the outside of your painted line should be 30 feet. Once you have the rope tight, just start walking. The rope will pull the paint machine in an arc and will give you your line. This method is very easy and, best of all, only requires one person, thus saving time.

Using stencils has long been a standard "short cut" for sports turf managers. In soccer, the use of a corner arc stencil is a great way to give an accurate, sharp, and consistent mark. We made the 1-yard arc cut into a thin piece of masonite board. We measured 3 feet from the corner of the wood and then cut out the 4-1/2 inches to form the corner kick arc. This stencil gives us a consistently duplicable arc.

Managing wear areas

Soccer is a little different than other sports when it comes to marking the pitch or field for play. Soccer has a unique distinction that there is no set length or width for their playing surfaces.

The Federation Internationale de Football Association (FIFA) rule book only gives the maximum and minimum dimensions for a field. The law states, "The field of play must be rectangle. The length of the touchline (or sideline) must be greater than the length of the goal line." FIFA says a soccer pitch may have a length of between 130 yards and 100 yards and a width from 100 yards to 70 yards.

By using this law, you can change the dimensions of your pitch so that you can move your wear areas. You can change the length of the pitch if you need to give the goalmouth a rest or change the width if you need to move the sidelines.

It may sound strange to move the sidelines but if you deal with soccer, you know about the "Deer Run," the area that the referee assistants run up and down all along the sidelines. To help cut down on the damage, you can fluctuate the width by 2-3 feet on each side and still adhere to the laws of soccer. This may sound like a small thing to do, but it will save lots of time and energy in trying to maintain these areas.

I found most damage to goalmouths occurs during training sessions. To help save your goalmouths, place the goals at the top of the 6-yard box or the 18-yard box to reduce stress that is placed on the area. If you are in a multi-use situation, you can move the goals completely off the field when not in use. If removing the goals is not an option, try removing the nets. I have found that people do not like chasing after balls when there are no nets up.

I hope you find that these few timesaving techniques make your jobs easier and more enjoyable as they have for us.

Dorian Daily is director of stadium grounds, Columbus Crew Stadium, Columbus, OH.
THE "TOPDRESSER STORE"
All Bannerman topdressers are designed and built to the highest engineering standards, hydraulically controlled and accurately calibrated to ensure uniformity and economy, says the company. Their topdressers will spread uniform layers of material from 1/16 of an in. or less and up to 1-2 in. All are accurately calibrated and range in size from 1.5 cu. yd. capacity up to 7.5 cu. yd. Bannerman topdressers will allow you to dispense either wet or dry materials.

Bannerman/800-665-2696
For information, circle 062

SPREADERS
Redexim Charterhouse models 1010 and 1520 are dual-mode top-dressers, functioning as drop spreaders using a rotary brush or as broadcast spreaders. The smaller unit, model 1010 is a trailed unit with four pivoting wheels and a capacity of 35.3 cu. ft. Model 1520, the largest in the whole line, offers a big 70.6 cu. ft. capacity and a drop spreader width of 5 ft.

The remaining models in the line function as drop spreaders only. The smallest unit offered by Redexim Charterhouse, model 1005, features a three-point linkage mounting, a 26.5 cu. ft. capacity and a drop spreading width of 5 ft. The larger model 1205 is a truckster-mounted unit designed for the John Deere Gator and it offers a 28.2 cu. ft. capacity and a seeding width of 6 ft.

Redexim Charterhouse/800-597-5664
For more information, circle 061

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Maintaining the Grounds

**WALK-BEHIND MOWER**

Cub Cadet Commercial features a full line of turf care equipment and landscape maintenance products specifically engineered for commercial landscapers, including the 5521 Commercial Walk-Behind Mower with a 5.5 HP Kawasaki OHV engine and a 21-in. cutting deck. The 5521 unit offers the following features: 21-in. stamped steel deck; 3-Speed Turbo Torq transmission; standard 3-in-1 rear discharge deck offering mulching, side discharge or bagging; 6-position dual-range cutting height adjustment allowing 12 choices of cutting height from 3/4 to 4 in.; 3-position handle adjustment; and steel wheels.

Cub Cadet Commercial/877-835-7841
For information, circle 193

**BOOM SPRAYER**

Walker Manufacturing introduces a new sprayer attachment for the front of the Walker mower. The SP6640 boom sprayer is easily mounted to all 42-, 48-, and 54-in. Walker decks and offers a 96-in. spray pattern. A spray gun with a 20-ft. hose and adjustable spray tip allows the operator to spray a mist and adjust to a 35-ft. stream. The 25-gal. tank contains a sump for tank and spray system cleaning.

Equipped with a constant pressure Shur-Flo pump and Viton valves, optimum spraying can be achieved at all times with a wide range of spray material, says the company.

Walker Manufacturing/800-279-8537
For information, circle 191

**INJECTION SYSTEM**

The Cushman Envirojet pull-behind chemical injection system applies amendments directly to the turf root zone. The patented system cleanly and safely saturates the target area to apply fertilizer, treat fungal infestations or other applications, says the company.

Textron Golf, Turf and Specialty Products/888-922-TURF
For information, circle 063

**DETHATCH THIS!**

Smithco has introduced its Verti-Star dethatcher that cuts down to 1 1/2 in. and features a 13-hp Vanguard engine with electric start and electric lift of thatching unit.

Plus the Smithco unit comes equipped with hydrostatic drive, grade C2 tungsten carbide tip blades (3/64, 5/64, or 1/8), 16-in. cutting width, and stable wide rear wheels.

Smithco/877-833-7648
For information, circle 199

June 2002

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BCMU® helps plant tissues come as close as possible to utilizing and storing the optimum level of nitrogen, maintaining adequate growth and proper root and shoot development which produces turf that is much better able to resist environmental stresses.

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Combine that with the efficiency of Meth-Ex® technology and you have a nitrogen source that stands alone. BCMU with Meth-Ex technology has a high nitrogen activity index, which means that more nutrients are available when the plant requires them while “banking” some for later use.

BCMU™ is found only in UHS Signature Brand Fertilizers and have been tested and used with outstanding results for years. Find out why the best fertilization program should be an easy balancing act for the smart turf manager.

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Maintaining the Grounds

KUBOTA EXPANDS ZERO-TURN LINE

Kubota entered the zero turn mower market last year with the introduction of its ZD-Series and now offers the turf professional a larger, more powerful, comfortable and competitively priced zero-turn mower, the ZD2SF.

Powering Kubota's ZD2SF is a durable liquid-cooled 3-cylinder E-TVCS diesel engine which has higher torque curves than competitive diesel and gas powered ZTRs. This engine operates at lower rpm, lower noise levels and offers better fuel efficiency and longer life, says the manufacturer.

All ZD-Series mowers use Kubota's exclusive design one piece hydrostatic transmission (HST) in an integral-type twin package, designed specifically for the ZD. This system uses two shaft-driven piston pump hydros to supply power to the final drives. The low noise direct shaft drive mowers are 60 or 72 in. wide, and have three blades. Cutting height can be adjusted from 1" to 5" in half-inch increments. All deck controls are easily accessible from the driver's position.

Kubota Tractor Corp/888-4KUBOTA, ext. 900
For information, circle 192

AERATION, COMPACTION RELIEF

The Terra Spike XP provides deep aeration and compaction relief down to 16 in. and offers central tine angle adjustment as well as central depth adjustment. Units also offer integrated shock-absorbing system and "quick fit" integrated tine mounting and extraction system.

The XP is versatile in offering a range of tine equipment and rear-mounted accessories. When hollow coring a core scraper collector or swathing attachment can be fitted.

Wiedenmann/912-790-3004
For information, circle 202

DEEP SLICER

The SISIS MultiSlat machine is a deep slicer with a working depth from 6-8 in. The frame has an integral weight bar for additional weights if required and floating pressure rollers that follow ground contours.

The MultiSlat has a working width of 48 in. and fits directly to compact tractors. Conversion frames are available for use with most trucksters.

SISIS Equipment/864-843-5972
For information, circle 194

THE RIGHT MIX

The SpraMate from Brohill is a dedicated spraying vehicle, ideal for all types of chemical application. The hydraulically-driven centrifugal pumping system with Quad-Jet agitation ensures total chemical mixing. With the Kohler 18-hp, V-Twin cylinder engine and multi-leaf, high-travel front suspension the unit offers a smooth ride.

The low-profile poly tanks come in two sizes, 160- and 210-gal., and the patented fill well spill-meat and locking lid reduces chemical spills. A 21-in. low-profile boom and electronic spray control package comes standard, along with the option of a hose reel and walking boom.

Brohill/800-228-1003 x 34
For information, circle 190