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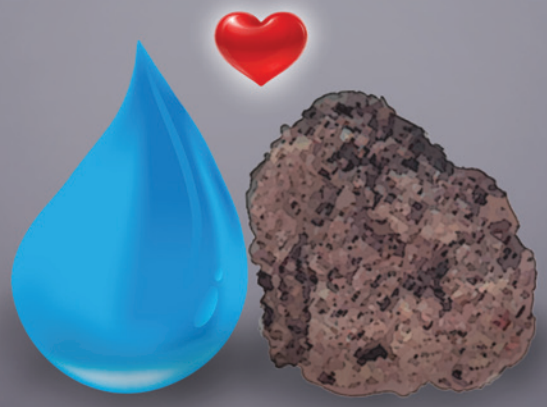

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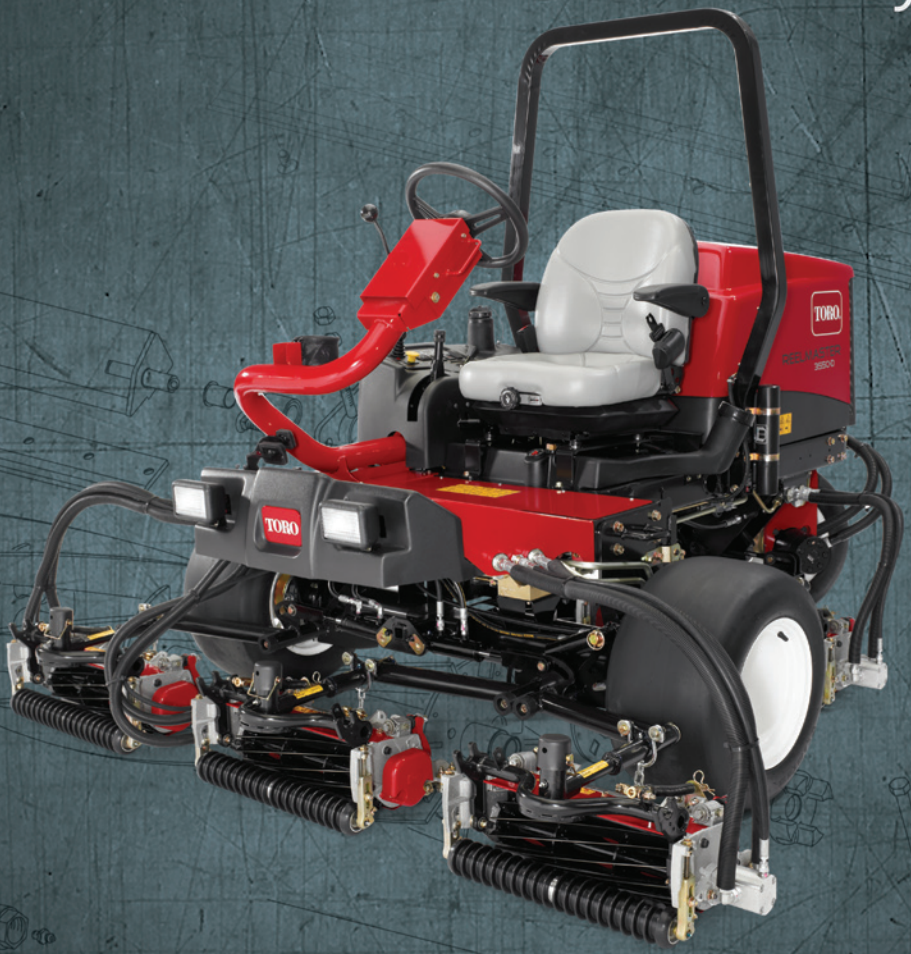

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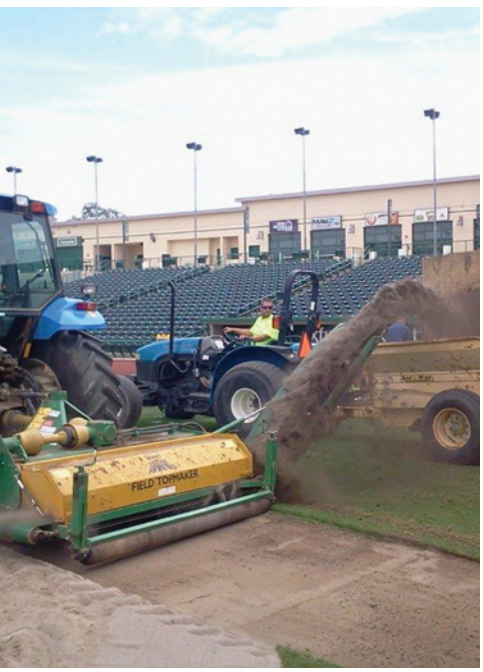

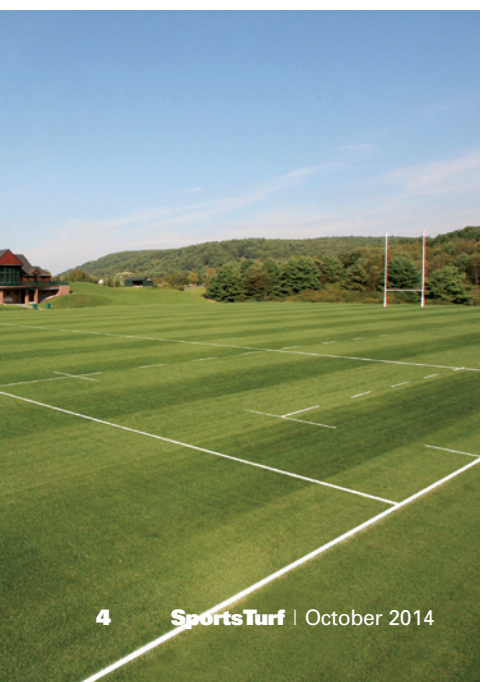

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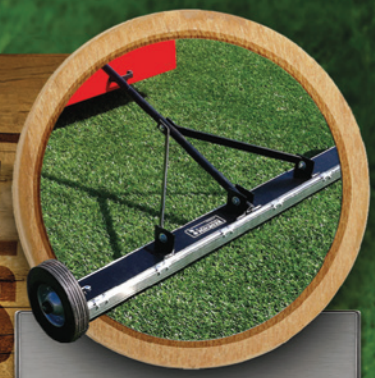
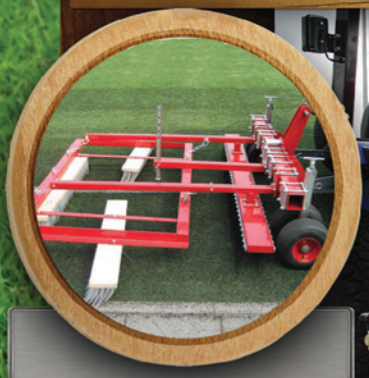
On the cover:
The Spartan mascot for The Steward School, Richmond, VA, celebrates the school's STMA 2013 Field of the Year Award for Schools/Parks Baseball. Mark Roberts, Athletic Turf and Field Manager for Steward, is a one-man show for the winners.

NO ARTIFICIAL INGREDIENTS

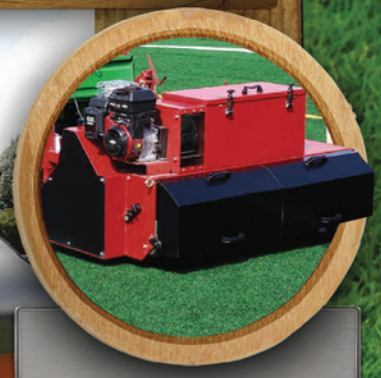
Verti-Top Walk Behind



Tow Behind Magnet



Verti-Groom



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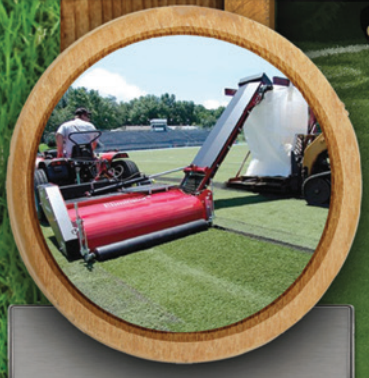
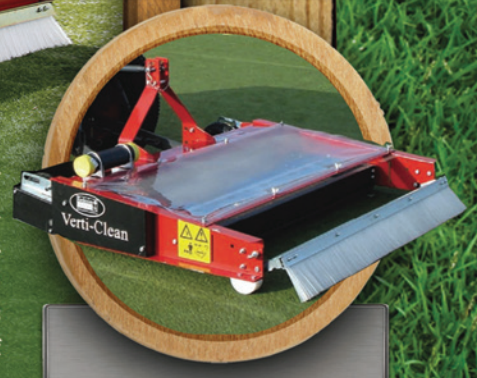
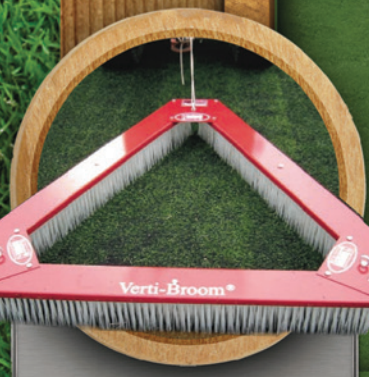


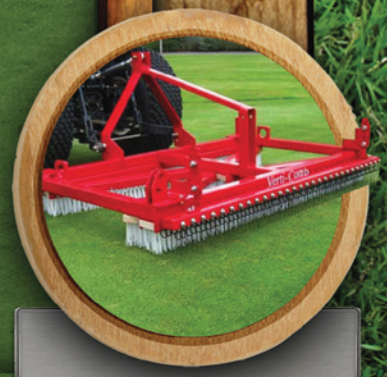
Eliminator



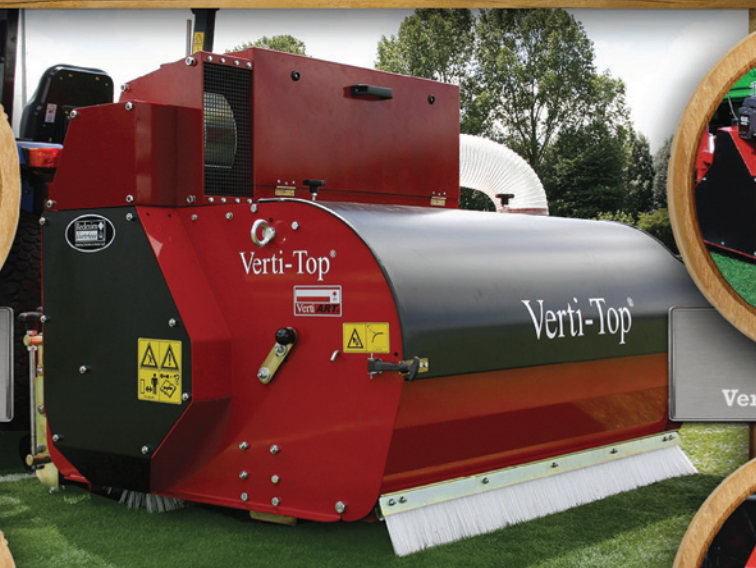
Verti-Clean



Verti-Broom



Verti-Comb



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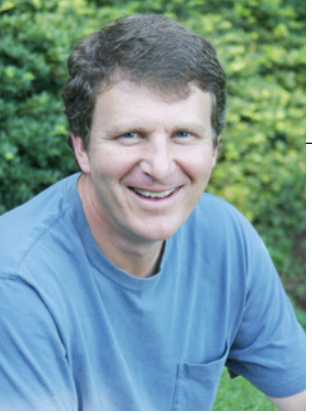

From the Sidelines

Eric Schroder
Editorial Director
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717-805-4197

Winter is coming

I write on the first day of autumn, a windy day in south central Pennsylvania that won't see 70 degrees. Earlier today I made note of which tree branches threatening the house need to come down before the snow flies, and thought I would share some ideas for preparing your football or soccer fields for winter in the cool-season turf regions. I turned to a great source of information—STMA's Technical Bulletins, available at www.stma.org.

"Cool-season grasses get a flush of growth in the fall. It is important to fertilize these grasses during this time to maintain healthy growth and enhance recovery from wear. With proper fertilization, your field has the best chance to go into the winter with a high amount of turf cover. Apply 1 lb. of nitrogen per 1000 ft2 in mid-October and after the first hard frost. You can wait until after the season to combine the final fertilizer application with post-season hollow-tine aerification and seeding. Do not apply excessive amounts of nitrogen within a few weeks before the first expected frost. Too much N at this time results in extreme plant succulence, which can lead to cold injury.

"Begin overseeding following the first game with perennial ryegrass and continue seeding throughout the season. Over time you will build a "seed bank" that will help maintain cover during the fall and into the winter. Also, some of the seed that does not germinate in the fall will germinate in the spring. Focus your overseeding on the high wear areas . . . if you can maintain turf in these areas you will have fewer weeds in the spring.

"Fill divots throughout the season with divot mix that contains sand/soil, organic fertilizer, and perennial ryegrass seed. This will help ensure a divot-free field in spring.

"Depending on your location, your turf may be able to begin to recover from damage after the season if it is still actively growing. If turf growth has stopped, you can still take steps to ensure your field survives the winter. Lower your mowing height to reduce your chances for snow mold outbreaks and damage. Even if your turf is dormant, aerify with hollow-tines and seed so you do not have to worry about it in the spring when your field may be waterlogged from spring rains.

"Applying topdressing in conjunction with aerification will also improve conditions in the spring. On native soil fields, consider topdressing with compost. Sand-based field should be topdressed with sand that closely matches the particle size distribution of the rootzone. Seed large, worn out areas; sod smaller worn out areas. Even if the sod is dormant, you can install it in places like soccer goal mouths. As soon as the weather warms up, it will start rooting.

"Apply a fungicide to protect against pink and gray snow mold. Check with your local university for recommendations on which fungicides to use. Use growth covers. Growth covers create a greenhouse-like effect that allows seed to germinate and turf to grow during the winter. Consider using growth covers in your high wear areas after you have seeded them. Be sure to apply a snow mold fungicide and remember you'll probably have to take the covers off periodically so you can mow.

"Preemergent herbicides can be applied in late fall for spring weeds BUT it is important to not overseed if you apply a preemergent herbicide because the herbicide will prevent your seed from germinating. If you need to overseed, you can kill weeds in the spring with postemergent herbicides." ■

Correction

There was an omission in last month's article on winter weeds, page 12. In the 2nd paragraph, the 2nd sentence should have read: "In a study conducted during the winter of 2013-2014, plots receiving simulated football traffic in fall contained 35 annual bluegrass plants per 9 ft2 compared to less than 2 plants per 9 ft2 those not receiving traffic (Figure 1)." We regret the error.

SportsTurf
SPORTS FIELD AND FACILITIES MANAGEMENT

EPG Media/Specialty Information Media
3300 Fernbrook Lane N,
Suite 200, Plymouth, MN 55447

The Official Publication Of The Sports Turf Managers Association

SportsTurf (ISSN 1061-687X) (USPS 000-292) (Reg. U.S. Pat. & T.M. Off.) is published monthly by Specialty Information Media at 75 Pike Street, Port Jervis, NY 12271. POSTMASTER: Send address changes to Sportsturf, PO Box 2123, Skokie, IL 60076-7823. For subscription information and requests, call Subscription Services at (847) 763-9565. Subscription rates: 1 year, $40 US & Poss.; 2 years, $65 US & Poss.; 1 year, $65 Canada/Foreign Surface, 1 year, $130 Airmail. All subscriptions are payable in advance in US funds. Send payments to Sportsturf, PO Box 2123, Skokie, IL 60076-7823. Phone: (847) 763-9565. Fax: (847) 763-9569. Single copies or back issues, $8 each US/Canada; $12 Foreign. Periodicals postage paid at Port Jervis, NY and additional mailing offices.

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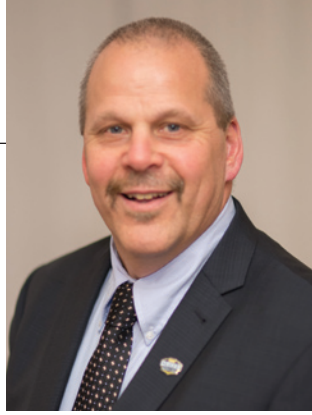


Tricks and treats

October in New England is always a great time of year. The temperatures are comfortable, the grass performs well, the colors are beautiful, the fall sports are in full swing and Halloween is celebrated. The tricks and treats I want to talk about involve you as a professional and as a person. You should have all received your conference brochure. In it you will find educational sessions, networking opportunities and trade show hours that will give you more tricks of the trade you can apply to your facilities.

Some may be little tricks like mowing different ways to get a striping affect or getting info to develop a field use policy. Some may be larger tricks like using drill and fill to help your compaction and drainage issues or using growth regulators in your line striping program. Your Board works diligently to provide these opportunities to you so you can succeed in delivering safe, playable and aesthetically pleasing fields.

This is a great time of year to let others know about STMA and the many ways the organization can help them in their jobs.

When I was younger I always wanted to dress like Batman or Spiderman for Halloween. You have the opportunity to be the superhero for your facility and deliver a field that will make young and old, amateur and professional alike have memorable experiences. The trick is learning what will and won't work for your particular field. You also have the ability to pass tricks of the trade on to others. Take part in discussions, answer questions and show how you do things. Even if someone picks up one little trick you have done a great service to the profession. This is a great time of year to let others know about STMA and the many ways the organization can help them in their jobs. Being an STMA member is a pretty cool thing.

Now for the treat part. Any sports season means long hours and all of our focus on work. Did the field get mowed and at what height? Did the paint arrive in time to do a great logo? Do I have time to squeeze in overseeding? When can I irrigate? Where is that weather forecast? All of these things and many more are important to getting the job done right.

In the middle of this do not forget to treat yourself so you don't burnout or develop the wrong attitude. It may be tough but once in a while just go for a walk and enjoy the surroundings. Go grab an ice cream and sit down to enjoy it. Share a pizza with your crew. Break away to watch your child's soccer game. These are the treats we need to give ourselves so we can come back and give our all to having the best fields we can. Another reason to go to conference is to learn some of the tricks to balance your professional and personal sides. Take advantage of your opportunities, learn new tricks and treat yourself right. ■

Environmental conservation: one sports turf manager's story

▲ **Field capacity** is the amount of water the soil holds in its micropore spaces within the soil.

I never thought I would be writing an article with Environmental Conservation in the title, but as I reflect on how sports field managers do their job that is exactly what we are trying to accomplish. We are all trying to create an environment in which both grass and athlete can have success. When it comes to athletes we all make safety our priority. While making the fields safe, we are usually doing something to the fields to help it thrive in the environment in which it lives. Conservation for a sports field manager could include irrigation practices, pesticides, fertilizers, and cultural practices.

IRRIGATION

Irrigation across the country means many different things. Some are being faced with major water restrictions while others of us irrigate freely without much thought given to water shortages. As I have managed multiple fields and systems in the past years, I like to think that I am getting better at conserving water. For me it started by understanding some of the technologies that are available and not pulling a plug and feeling the soil every afternoon. Instead I started using two particular technologies in tandem; ET (evapotranspiration) rates and a TDR (time domain reflectometry) soil moisture meter.

Using ET can be accomplished a couple different ways. We have our own weather station next to one of our practice football fields that reports the data to our central irrigation system. This allows us to have weather data very close to the facilities that we are managing. Obviously there is some cost associated, but the water we have saved has more than paid for the weather station. We irrigate with city water, so only watering with the amounts of water necessary can save money in hurry.

The other way to use ET is by using your local weather reports. Many of the common weather websites report ET rates for the day. You should be able to see the ET for the day and set irrigation run times

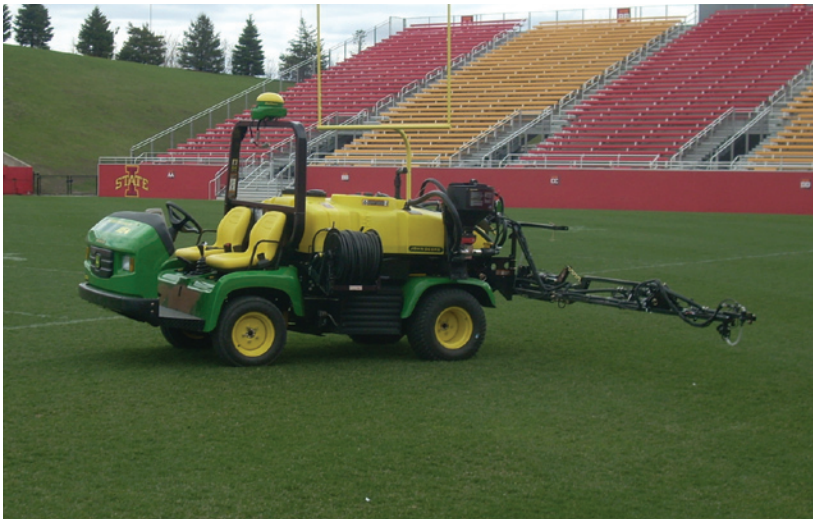
accordingly. Using ET is only effective if you know your precipitation rates of your irrigation system.

TDR soil moisture probes or TDR soil moisture readers that are placed into the soil permanently are great at giving you an idea of how much moisture is in the soil. Every soil is different, so it takes a little work to understand how to use this effectively to set up irrigation. You will need to figure out what moisture level is Wilting Point and Field Capacity. This doesn't have to be perfect, but getting this close is very helpful. Drying down the field until it wilts and then measuring the moisture level will give you an idea of what Wilting Point is for that soil.

Field capacity is the amount of water the soil holds in its micropore spaces within the soil. This is when the soil is slightly damp and water can be squeezed out of the soil with a little effort. Again you want to be close, not perfect. If you know what field capacity and wilting point for your field are than you can target your irrigation cycles to be somewhere in between those two values. If you irrigate much more than field capacity you could be wasting water going through the soil profile quicker than the plant can use it or its running off the surface in a saturated state. In the real world we probably irrigate slightly above field capacity, but are really just trying to keep the soil at field capacity.

Understanding your precipitation rates for your irrigation system is very important. I won't be able to give a lot of detail on this in this article for the sake of length, but figuring out how many inches an hour your system irrigates is very important when understanding how to schedule your run times. If you don't know your precipitation rates than you're just guessing with your run times. Guessing could lead to over or under irrigating. Either way it's not an efficient use of water. Auditing your irrigation system isn't terribly difficult if you wanted to do it yourself or there are companies that could do it for you (see *SportsTurf* August 2014 issue, page 30 on how to conduct an irrigation audit). Sometimes spending some money on the front end can save you money on the back end.

If you understand and use ET, TDR probes, and precipitation rates you would absolutely be justified in using the water you do to deliver safe and healthy athletic fields. There are other things like rain sensors and central irrigation that can help make you more efficient as well. The point to all the irrigation tools is to help you conserve water. Remember, you're conversationalists even if you didn't know it. Ask yourself if you do everything you can to conserve water, even if it's readily available. There are times for playability you may abuse water, but that should only be justified for player safety. The rest of the time you should be trying to conserve as much water as possible.



▲ **The outside booms** on this sprayer are each their own single zone and are automatically controlled by GPS. This doesn't allow any overlap and closely monitors flow rates and application rates from the operator's seat.

PESTICIDES

The other area where technology has really helped me conserve is pesticide application. Living in the land of corn and soy beans, I was seeing GPS technology being used everywhere. Why not on our fields? was the question we asked. So we built a sprayer (with John Deere's help) that is GPS-equipped. The outside booms are their own single zone and are automatically controlled by the GPS controller. This doesn't allow any overlap which means we never double apply anywhere and can closely monitor flow rates and application rates from the seat of the sprayer.

The other bonus that I didn't expect is that we can know apply at twice the speed we used to and are far more precise. Using this technology shows that we are committed to applying chemicals responsibly and as accurately as possible. It could also lead to pesticide reduction if you have vast areas that you're spraying or struggle with small overlap areas.

GPS technology is not available to all sports turf managers due to costs, but thinking about ways to reduce overlaps and making sure application rates are correct is an important part of being a conversationalists. It is our responsibility to make applications as accurately as possible.

FERTILITY

Another practical area for conservation is fertility. Regular soil tests and plant monitoring is absolutely necessary. Soil tests don't have to be done every year, but they should be done often enough for you to know what's going on with your soil. Fertilizing to specific soil needs is not only going to save you money, but it will also save on nutrient fate in the environment. Each year is different with rain, temps, and field use. Thinking about all components of what the soil, environment, and field playability will help you justify fertility needs. If you are doing this before fertilizing then you are conserving when you maybe didn't know it.

CULTURAL PRACTICES

Cultural practices are another way we act as conversationalists when we may have not realized. If you are keeping sandy and native soil fields free from compaction and consistent throughout the soil profile you are giving the plants an environment to grow healthy with fewer inputs. If the plants can grow roots and respire more efficiently you will have a healthier grass stand that may need fewer inputs like fertilizers and pesticides. So keep poking holes, pulling cores, and slicing the fields you have. It may save you from disease and other issues that arise when the soil profile is compromised.

Conservation, many of you are already doing it. My hope in writing this article was to share some of the things we do at Iowa State University to help conserve the environment we have. Many of you already conserve, don't be afraid to share those details with your superiors. The general population needs to know that managing natural grass fields is a very specific science and we as sports turf managers take it very seriously. Sharing that we are conversationalists could help change the perception that some people have toward our industry. ■

Tim VanLoo, CSFM, is manager of athletic turf & grounds for Iowa State University and the Higher Education representative on the Sports Turf Managers Association Board of Directors.

▲ **Jack Trice Stadium**, Iowa State University, Ames, IA.