

# The impact of "going green" on sports turf

By Kevin Meredith, CSFM

I have been calling around the country doing interviews with sports turf managers to find out how they are dealing with the "green movement" and the impact that increased environmental regulations are having on sports turf maintenance practices.

I talked to Mark Frever, grounds supervisor at Albion College in Albion, MI, a man with a plan. This guy is way ahead of the curve. First, here's a quote that Mark wanted included with his information: "Let every individual and institutions now think and act as a responsible trustee of Earth, seeking choices in ecology, economics and ethics that will provide a sustainable future, eliminate pollution, poverty and violence, awaken the wonder of life and foster peaceful progress in the human adventure." -John McConnell, founder of International Earth Day.

Mark embraces this philosophy and has incorporated its basic tenants in his day-to-day management practices. In his words:

"During student orientation, the coordinator for the Michigan State University turfgrass management program, Dr. Trey Rogers, stood in front of me and said, "You will breathe, sleep and eat turfgrass until you are sick of the color green." Back then, 12 years ago, I could have never guessed the word green would change into the commanding signal word for the environment. It is my opinion, the origin of the buzz label, "green," came from a Michigan golf course superintendent or one of the many minds that organized the Michigan Turfgrass Environmental Stewardship Program (MTESP).

"The MTESP changed the way I managed a golf course when I was a golf course superintendent and I brought the program to Albion College. People were quick to point out that the MTESP is designed for golf courses and I would say that can be fixed with

"white out." The core of the program is organized in a three ring binder. I would simply cross out the word golf course and replace it with Albion College property. It was an easy transition. The staff of the MTESP supported my efforts because they understood, in Michigan, that environmental stewardship is not propriety to the golf courses. Golf courses have led the way in developing best management practices in regards to environmental issues. The Michigan green industry also has sod producers, lawn care providers and institution managers that could benefit from the MTESP program too.

"The MTESP program is divided into two sections, Pollution Prevention and Environmental Enhancement. The mission and further information can be found online at [www.mtesp.com](http://www.mtesp.com). The Pollution Prevention section has nine modules to apply to your property. Each module could stand on its own for an article. They are:

1. Site Evaluation
  2. Wellhead Protection
  3. Fuel Storage
  4. Pesticide Handling
  5. Pesticide Mixing and Loading
  6. Pesticide and Fertilizer Storage
  7. Equipment Wash Pad
  8. Emergency response planning
  9. Shop maintenance practices
- "The Environmental Enhancement section has resource sheets and appendixes on programs, agencies and associations that can become partners or part of your team in your environmental efforts. This section also includes fact sheets of environmental information that can be applied to any body of water like rivers, streams or pond on your property. They are:
1. The Green Industry Guide to Environmental Purchasing



Kevin Meredith, CSFM



Mark Frever

2. Buffer Zone Management for Golf Courses –
  - a. Buffer Strip Basics
  - b. Buffer Strip Techniques
  - c. Buffer Zone Vegetation
3. Michigan Business Pollution Partnership Program
4. Program Appendices
  - a. Water and Wastewater
  - b. Fuel Storage
  - c. Pesticides
  - d. Michigan Department of Environmental Quality (MDEQ) State Laws Related to Water and Land
  - e. Media

"In conclusion, the MTESP three ring binder stays on my desk for access to handle questions from students, faculty, staff, community and the media. Since adopting the MTESP program 6 years ago, I have become a member of the steering committee, representing Michigan Sports Turf Managers. Professors and students have invited me to environmental workshops. The program has turned the Albion College Grounds Department into a proactive environmental operation. As I said earlier, this is not proprietary to the golf course industry. The golf course industry needs the sports turf managers participation to continue the growth of programs like the MTESP."

### Thoughts and comments

What I have come to learn from this adventure is that in general all the different sections of the country have the same problems or concerns. I know that water is huge in the South and West but water is an environmental concern everywhere. I know that pesticide usage has come under tremendous scrutiny on Long Island and that there are many sections of the country considering bans on inorganic fertilizers. What impact will legislation in one section of the country have on you?

There is an old saying that all politics are local. What that implies is that in order for any politician to succeed they must have the most basic support. Ideas and power ultimately come from the local level. The same is true when it comes to environmental awareness and what is now termed the green movement.

Think about this for a moment, when it comes right down to it, who is responsible for the most basic forms of environmental conservation? It is you, the individual that makes choices on a minute-to-minute basis regarding everything you do in your life. Let's take one example; plastic this seems to be a hot topic these days. Can you make a choice not to use plastic? Not very easily. But each of us can choose how we deal with the plastic when we are done with it. Recycle, reuse or refuse. Those are our choices.

Here are some numbers for you to think about as you make your daily choices concerning just one plastic item, plastic water bottles. How many of these are in your trash each day? I know these make up the bulk of the trash at the National Soccer Hall of Fame. Even with recycle bins!

Take a look at what I found on this website, [www.endbottledwater.com](http://www.endbottledwater.com). I received permission to use their text and statistics.

## Facts about bottled water

Americans consumed more than 30 billions bottles of water in 2006 alone.

Less than 14% were recycled.

Twenty-six billion bottles were sent to landfills or incinerated. In landfills they take 400-1,000 years to biodegrade; during incineration, toxic chlorine gas and ash containing heavy metals are produced.

16.5 billion gallons of water were wasted; that's 2 gallons for every 1 gallon sold.

17 million barrels of crude oil were used in the production process; that's enough oil to fuel 1 million cars a year. This figure does not include fuel used in transportation or to generate power for storage.

2.5 million tons of carbon dioxide were discharged during production; again, this does not account for transportation or storage.

Bottled water costs 5,000 times more than tap water despite the fact that a large percentage of bottled water is just filtered tap water. That's up to \$10 per gallon.

"Because of the uncertain safety of tap water and the desire for convenience, Americans have created an unprecedented market for bottled water. This convenience has come at a steep price for both our pocketbooks and our environment. In 2006, Americans purchased over 30 billion bottles of water at prices higher than milk or gasoline. Approximately 26 billion of the waste plastic bottles ended up in landfills or in incinerators. Overall, we used the equivalent of more than 17 million barrels of oil to just manufacture the plastic bottles and this does not include the energy to transport, store and refrigerate these bottles on their way to our homes."

What does all this have to do with us being turf managers? Everything; because it is just one little item that we don't give a lot of thought to and it begs us to ask how many other items or products do we deal with each day that impact the environment in ways that we never think about? What is the big picture and what is our role in it?

As turf managers what are some of the things we can do to lessen the impact that our profession has on the environment? Here is a list that I developed based on my interviews and research, these are in no particular order of importance, they are all important.

- Routing- combining trips for fuel efficiency and manpower allocations.
- Reducing run time of vehicles and eliminating unnecessary usage.
- Elimination of 2 cycle engines by replacing them with 4 stroke or electric.
- Upgrading and increased monitoring of irrigations systems. This can be something as simple as rain gages on your field.

- Choosing newer cultivars of turfgrass that are more drought and disease resistant.
- Taking advantage of local and national educational opportunities that address environmental concerns.
- Be proactive by anticipating and being prepared for changes in the political climate and laws in your area.
- Look for ways to recycle or reuse items that in the past were discarded.
- Network, stay in touch with those around you and make every effort to share information and techniques.
- Investigate ways to make your facility more eco-friendly without breaking the budget.
- Consider plantings to shade buildings for energy conservation.
- Install energy efficient lighting and upgrade to energy saving heating controls.

I know that there are many more things that can be added to the list and I am sure that each of you has things that you have done to embrace the changing issue of environmental awareness. Keep it going and continue to develop and share your own list.

I don't think the green movement is about going all organic I think it is more about awareness. Sustainability is not only about resources it has to do with the way we get our fields to perform. If that takes more input of inorganic fertilizers to produce fields that are safe and playable then so be it. It doesn't mean that the common areas of our facilities can't be on an organic program.

Does it mean that we can't control invasive weeds with appropriate chemicals? I think common sense should be the rule.

Balance and planning can go a long way. The Green Movement is about looking at the future and asking the question, "What effect are my actions going to have on the environment and what can I do today to make it sustainable?" It is my responsibility to evaluate what they might be. I feel comfortable with a few weeds in my fields if it means reducing the input of herbicides but still having safe fields.

I am sure all of you have thought about many of the issues and ideas in this article at one time or another. I am also sure that many of you are well on your way to developing a sustainable maintenance program. I have only scratched the surface, there is so much more out there that ten articles might not cover all the information.

I hope the Green Movement has been demystified for those of you who are just starting to move in that direction. It is not a cult it is just an increased level of awareness.

If you have an idea about going green that you would like to share with the rest of us please contact me at [kimered-ith1@gmail.com](mailto:kimered-ith1@gmail.com). ■

*Kevin Meredith, CSFM is turf manager for the National Soccer Hall of Fame, Oneonta, NY.*

## Snow management tips

**H**onda Power Equipment offers these snowblower operational and maintenance tips for the upcoming season:

Check the snowblower's engine oil levels daily.

Check the machine's main wear items. These include the blower's skid shoes and the scraper bar; both are intended to rub along the ground as the unit is operated and can wear out even faster when trying to clear snow down to the bare pavement.

Note: Both the skid shoes and the scraper bar are, on many popular models, usually held in place by nuts and bolts. Operators should follow these steps for adjustment and replacement (but make sure the machine is **not running** while checking everything out!

- Place the snowblower on a level surface. For track-type snow blowers, step on the foot pedal and set the auger in the middle position.
- Loosen the skid shoe nuts and obtain the auger ground clearance for the appropriate snow conditions. Adjust the right and left shoes equally, and then retighten the nuts securely.
- Loosen all the nuts, holding the scraper, and adjust the scraper to the specified ground clearance. Be sure to retighten the nuts securely.
- Inspect the scraper and replace it if it is excessively worn.

A lack of power may indicate the need for a tune up where spark plugs are replaced and valves are adjusted. Black smoke coming out of the exhaust may indicate a "rich" condition, a common problem when operating at above 5,000 feet altitude. Here, your authorized dealer may suggest resetting the carburetor. For oil changes, tune-up intervals, information about replacement parts, and warranty information, refer to the owner's manual specific to the model.

Here are several good storage practices for snowblowers that help to ensure optimum performance and a long working life:

Because rust and corrosion will keep a snowblower from operating at peak performance, clean the auger housing with water and wipe down with a cloth before storing. Check the chute drive gear, shift and throttle levers, and ring gear; if any lubrication is necessary, do so before storing.

As with any gas-powered power equipment model, empty a snowblower's fuel tank or add fuel stabilizer before storing a snowblower for any length of time. This will make for an easy start on the next pull.

Check for any worn parts and order from the dealer as it is easier to replace what is needed ahead of the season's first snowfall. Check manufacturers service manuals for suggested maintenance schedules and keep good records for all equipment. Inspect all painted surfaces and touch up where needed.

This information supplied by Honda Power Equipment, [www.honda.com](http://www.honda.com)