

# Using signage to educate the public about your environmental stewardship

HAD A CONVERSATION with Dr. Dave Minner and my wife, Sally, over dinner at the STMA Awards Banquet in Austin last winter about how the general public perceives sports turf managers and how at times they seem to misconstrue the work we do. They seem to think we have a blatant disregard for protecting our natural resources, when the truth is, we preserve it every day.

I wonder why the general public is so misinformed about the work we do day in and day out. The truth of the matter is simple; when we are spraying pesticides or applying fertilizers we may appear as outlaws to our environment, but what do we do to showcase our environmentally

friendly stewardship practices? The answer to the question is a loaded one by far; however, the truth of the matter boils down to this: it might be our own fault.

We all have signage to lead the general public to parking areas, restrooms, concessions stands, gift shops, etc., but how much thought is given to educating the general public about environmental stewardship practices you might already have

in place on your property? We are all stewards of the land. Signage is one of the most important tools we can use to educate and teach the general public about our environmental stewardship.

Today, we have to listen to what the public is saying. For St. Mary's College of Maryland, it's the students that matter and how we conduct our day-to-day business, including our Sports Turfgrass Maintenance program. We use a Bermuda hybrid cultivar (Riviera) that can withstand the transition zone punishment and heavy-use field play. We call our sports fields "green spaces" and point out all the beneficial factors they possess.

A list below highlights signage opportunities for the environmentally friendly practices you might already have in place, from storm water management to recycling. Teaching the public is not only good for your image, but it also serves as a 7-day per week outdoor classroom for the environment.

# PARKING LOT AREAS

Large common lawn areas around parking areas that are not being used or serve as any function for your facility can be converted to meadows or naturalized areas. Installing blue bird boxes and selective perennial plants can turn this into a wildlife sanctuary. Signage can have wording for wildlife, storm water management and reducing carbon footprints.

Non-pervious parking lot surfaces equipped with rain gardens are an excellent outreach and education tool for storm water runoff prevention. Signage can have wording for different types of native perennial plants that absorb storm water runoff. Based on the square footage of your parking area, you can average how many gallons of storm water runoff you're filtering from one inch of rainfall. You could document all wildlife that makes the area its home.

You do not need multiple signs; one sign can sum your entire environmental program in a bullet-point format.

If you have asphalt or concrete parking lots, plant several large canopy trees within the parking lot island for shade. Signage can have wording about providing shading for a cooling effect for hot impervious surfaces from the sun's radiation.

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### **PRACTICE FIELD AREAS:**

- Unused lawn areas that serve no purpose around your practice facilities can be turned into a forestation.
- Install buffer strips off all four sides of the field for slowing down sheet water movement.
- Catalog all the native plants from your meadows and show them through signage throughout your practice facility.
- Document any nesting or residential wildlife and showcase through signage.
- Highlight and bring attention to any large trees that might be the largest on state record.
- Show through signage your organic fertilizer program.
- Show how many pounds or gallons of pesticides you have eliminated.
- Show through signage if you're using VOC-free marking paints.
- Show through signage if you're using disease- and pest-resistant turfgrass.

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# STADIUM FIELD/PRACTICE AND INTRAMURAL FIELDS

Dr. Keith Karnok, Dr. Gil Landry, and Timothy R. Murphy from the University of Georgia, and Dr. Bert McCarty from Clemson University, wrote a piece on the environmental benefits of turfgrass for the Sports Turfgrass Management Course Certificate Program that I would to like elaborate on a little. I would highly recommend this course!

Air Purification. Healthy turfgrass and moderated field conditions can have between 40 million and 10 billion turfgrass shoots for a standard football, soccer or lacrosse field. The turfgrass shoots are very good at trapping dust, dirt and other pollu-



tants that can be potentially harmful for human health. Hundreds of pounds of sulfur dioxide can be absorbed throughout the year, helping to reduce levels of ozone, hydrogen fluoride and peroxylacetyl nitrate (PAN) to promote cleaner air. In fact, some species of turfgrass are known to absorb carbon monoxide. Turfgrass can aid in filtering huge amounts of air pollutants found in urban areas from homes, cars and factories.

Global Warming's Arch Enemy. Turfgrass requires and absorbs carbon dioxide and



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# **Getting started**

FOR MORE INFORMATION to become better environmental stewards contact Jim Sluiter, staff ecologist at Audubon International, jsluiter@auduboninternational.org. Remember, environmental stewardship is not a fad but rather our social responsibility. So many sports turfgrass managers have already shown support and shared ideas for new ways of rethinking grounds maintenance programs without re-inventing the wheel. We have to be a team to make a difference to clean our local watershed and reduce our carbon

dioxide for greenhouse gasses. Everything we do to prevent storm water runoff and to reduce our carbon footprint addsup. We are the leaders who care about tomorrow's sport turf managers. I remember how many golf course superintendents mentored me along the way on my turf management path. I still use some of the old-school concepts that I learned from those guys. In my humble opinion, I think this is a great way to give back and help the new generation of sports turf managers.-Kevin Mercer

acts as an oxygen converter. This combats and fights greenhouse gasses and hopefully suppresses global warming. Turfgrass and trees along interstate highways produce enough oxygen for millions of people.

Erosion Control. Turfgrass acts as a superior control mechanism for erosion. Turfgrass has a superior root structure system that is ideal for eliminating soil erosion. Preventing soil erosion helps to eliminate silt and phosphorus matter from leaching into our local watershed and stabilized shorelines. Turfgrass also reduces storm water runoff much better than other vegetation.

### OTHER BENEFITS TO PROMOTE

Turfgrass helps to filter rain and storm water runoff for underground aquifers. The heavy root masses and soil microbes act as a filter to capture and break down different types of pollutants. Case studies from Cornell University have shown that properly fertilized healthy turfgrass is one of the best protections against the possibility of nitrogen leaching into your local watershed. There is another study that proves turfgrass acts as a superior filter for as storm water runoff. Remember, however, that certain turfgrass cultivars that are mowed once a year control and absorb much more storm



water runoff then short-mowed turfgrass within ditch lines or culverts.

Turfgrass is one of nature best ground covers for reducing solar radiation from the sun. Each individual blade of turfgrass acts as an evaporative cooler. The cooling effect in turfgrass comes from evaporation and transpiration: one acre of turfgrass can lose about 2,400 gallon of water. This evaporative cooling dissipates approximately 50%

Other benefits include: fire prevention, allergy control, glare reduction, pest control

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Meadows/naturalized areas can provide habitat for many different types of wildlife. Show through signage how you are protecting the local ecological system.

You might have rain gardens, butterfly gardens and healing gardens, which are a new concept for college grounds. These are excellent areas for signage of wildlife inventory.

Trees hold nests of many types of bird species. Have a survey done from a professional nesting bird consultant. Show through signage how you are protecting sustainable grounds solutions. Some property might have bird and bat housing throughout their property. Inform the public through signage how certain types of birds and bats can eat several types of pest insects, providing a means of natural pest reduction.

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# **RECYCLING**

- Trash is the most common term that the general public associates with recycling. Set company goals per year for a certain amount of recyclables tonnage for your complex and show your numbers to the public through signage and press releases.
- Yard Waste: Inform the public if you compost and show through wording how many yards you generate and apply for your lawns at your complex per year to improve soil organics.
- Storm Water: Inform the public if you have rain barrels installed on your downspouts for your complex. Show through signage how your company eliminates the use of portable water for irrigation for herbaceous plant watering.
- Food Waste: Vermin composting is becoming very popular to eliminate food waste and turn into organic soil amendment. Show through signage how many tons of food waste per year you recycle back into soil organics for your beds and lawns.

Signage can be very expensive; however, it's worth every penny for outreach and educational purposes, to tell the public about your company's environmental stewardship. Keep all environmental signage uniform in shape and color so people can associate it from a distance and identify it as a symbol for positive environmental influence for your property. If a picture can be worth a thousand words, why not advertise it to speak to a million?

When preparing your green space/sports turfgrass field, take a look around your parking lots, fields and shop areas to see how you can improve your storm water management and reduce your carbon footprint. It's a packaged deal; we just can't do one or two things well. We should try to do as much as we can to the best of our abilities if time and cost allows.

My good friend Jim Sluiter has been there for me since the start of my environmental journey, always offering great advice and encouragement. His dedication to protect wildlife sanctuaries and balance the aesthetics of turfgrass is a difficult combination; however, once done, it can promote excellent recognition for your institution through a program that can work for you.

Kevin Mercer is superintendent of grounds at Saint Mary's College of Maryland.



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