

## More on Vandalism

**BY DR. DAVID MINNER**  
Professor, Iowa State University

Questions?  
Send them to  
David Minner at  
Iowa State University,  
106 Horticulture Hall,  
Ames, IA 50011  
or email [dminner@iastate.edu](mailto:dminner@iastate.edu).

Or, send your  
question to  
Grady Miller at  
North Carolina State  
University, Box 7620,  
Raleigh, NC 27695-  
7620, or email  
[grady\\_miller@ncsu.edu](mailto:grady_miller@ncsu.edu).



**S**ometimes inappropriate comments are burned into the field with unknown products. I would like to know how to fix these damaged areas and if other schools have policies that assist with recovering and providing funds for this damage.

Gerald Landby

Director of Grounds, Carroll College, Helena MT

Last month Dr. Grady Miller presented valuable insight when dealing with physical vandalism caused by hooligans driving on athletic fields.

But what about those choosing a more sinister and calculated approach to abusing the fields we so dearly admire? Some of the products used by the culprits include: gasoline, diesel fuel, hydraulic oil, salt, paint, lime, herbicides, fertilizer, vinegar, baking soda, and an assortment of caustic cleaning products readily found in the home. Do a little investigative work to try and determine what was used to kill the grass. Look for any residue or odor from petroleum products, lime, or concentrated herbicides. It is likely that the application was made a few days before the turf phytotoxicity occurred.

Here are some tips when you suspect chemical vandalism has occurred:

- **Since you don't** really know what you are dealing with, treat it as a pesticide or hazardous waste and use protective gloves, boots, eyewear, and clothing when contacting the contaminated area. Besides, those responsible for the crime could be liable for the expensive removal and disposal of a hazardous waste.
- **Be sure to immediately report** the incident to your administration. Since 9-11 the rules for dealing with vandalism and terrorism are changing. Not knowing what was applied to the field may influence administration's decision to use the field for the next scheduled event. Pranks that result in canceled games can serve as a message to the perpetrators that this type of disrespect for the community will not be tolerated.
- **Avoid the rush to flush** – adding water may activate the contaminant or spread the product into the soil. Dry materials such as salt, lime, fertilizer, and paint dried on leaves can be swept, vacuumed, or scalp-mowed from the area. Damage caused by salt or fertilizer may benefit from dilution with water and leaching beyond the upper 6 inches of soil. Oil-based paints and most aerosol paints, not specifically formulated for turf use, will kill grass. A heavy dose of paint is often applied when paint is slapped on with a roller. It would be really nice if they would just use a latex paint mixed at 2 parts water to 1 part paint.
- **Avoid grass graffiti.** When obscene words or graphics are etched into the field by killing grass it may not be sufficient to simply replace the exact areas by seeding or sodding. It does not solve the problem if the objectionable words or pictures remain visibly distinct as a stand of darker healthier grass. Remove all of the area around the vandalism so that the repair will only look like a larger rectangle. Some more creative sports turf managers have painted extra logos over the damaged areas. A nursery using the same grass varieties and management regime is invaluable when making repairs that will cosmetically match your most important fields. Fresh grass clippings can also be scattered in a heavy dose over the damaged area to provide quick camouflage that nearly matches the rest of the field in color.
- **Test the soil.** When soil removal is not an option consider soil testing to anticipate any residual contaminants that will damage the new turf. A soil-testing lab can easily determine if salt levels are too high for plant growth. Testing for herbicide residue is expensive and will cost approximately \$80 for each type of herbicide suspected.

I often use a simple do-it-yourself bioassay to help decide if soil contamination is a problem. Take a 6-inch deep wedge or core from at least two locations of the damaged area. Take one sample from the worst looking area to determine the worst case scenario. Split the core lengthwise from top to bottom without disturbing the layers of the soil profile. A 4-inch PVC pipe cut lengthwise makes a nice container for the bioassay. Place the core on the PVC pipe so that you can plant seed across the entire soil profile from top to bottom. Keep the soil moist and check it daily to observe seed germination and subsequent growth to see where the grass lives and dies; determine the depth of contaminated soil. Use a fast-germinating grass like perennial ryegrass. Cucumber seeds are also effective since they are sensitive to salt damage. Sometimes the plants germinate then quickly die, so give it about 2 weeks to complete your observation.

Repairs for most of the physical or chemical vandalism that I have been involved with on natural grass fields ranges from \$1.50 to \$2.00 per square foot, excluding costs associated with lost revenue and hazardous waste removal. Perpetrators can be charged with criminal mischief and criminal trespassing as well as liability for damages. The new rubber infill synthetic turf doesn't seem to be immune to vandalism. It seems the deviants have discovered that rubber and plastic are flammable. I bet they don't know that their liability damages are about five times greater on the synthetic turf. ■