

April 22nd is commonly celebrated as Earth Day, and what better way to celebrate the environmental impact our industry has on the planet? Today on Sod U, guest writers Lindsey Pollard and Rachel Massey of the Massachusetts Toxics Use Reduction Institute (TURI) discuss the various environmental impacts artificial turf has versus those of natural turf.

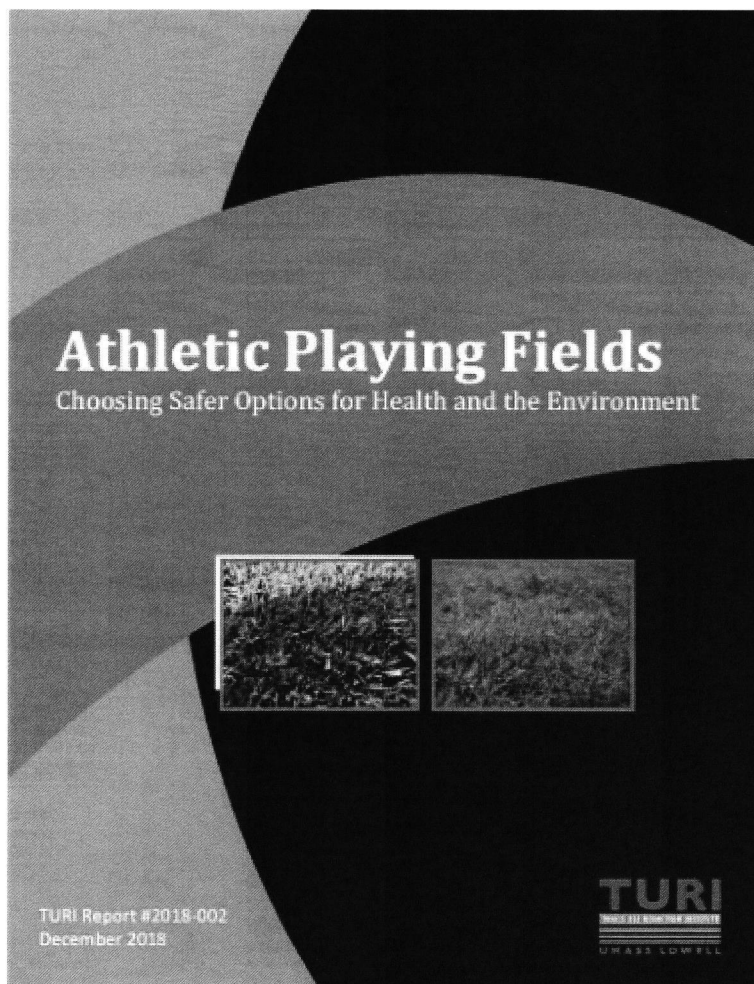
Earth Day: Environmental Impacts of Artificial vs. Natural Turfgrass

Here at the Massachusetts Toxics Use Reduction Institute (TURI), we often receive questions about natural grass versus artificial turf. This led us to compile health and safety information about the two options located here: www.turi.org/artificialturf.

TURI's work is based on the principles of toxics use reduction, which focuses on identifying opportunities for communities, including homeowners, to reduce or eliminate the use of toxic chemicals to protect human health and the environment

Chemical Hazards

Chemicals of concern may be found in any of the synthetic materials used in artificial turf. Particular concerns have been raised about the use of recycled tire materials used as infill to hold artificial turf in place and to provide cushioning. TURI has written a report focused on a number of these infill materials, including recycled tires:



Recycled tires can contain a wide variety of chemicals including metals, such as lead and zinc, volatile organic compounds (VOCs), and others. Some chemicals found in recycled tires are known or suspected carcinogens, or are associated with other health effects. Chemicals of concern may also be found in other types of infills (see TURI's report for more details). Choosing natural grass can help reduce your exposure to chemicals of concern and potential health concerns associated with exposure.

Environmental Concerns

There are several environmental concerns associated with artificial turf including loss of wildlife habitat, contaminated runoff, and migration of synthetic materials. Contaminants that are harmful to aquatic life, such as zinc, have been found in storm water runoff from artificial turf. Both infill particles and broken synthetic grass fibers can migrate away from yards or playing fields, contributing to microplastic pollution.

Location: <https://sodsolutions.com/industry/artificial-vs-natural-turfgrass/>

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Heat Issues

Artificial turf can become much hotter than natural grass on a warm day. Experts note that high temperatures may lead to potentially life-threatening heat-related illnesses for users, especially athletes. A number of studies have measured high temperatures on artificial turf, some as high as 160°F.



Natural Grass as a Safer Alternative

Natural grass can be a safer option for home lawns and recreational spaces by eliminating many of the concerns noted above. Many homeowners and communities choose to use organic grass management, which eliminates the use of toxic insecticides, herbicides, and fungicides.

Several communities in Massachusetts (MA) are implementing organic grass management on public properties such as schools and sports fields. The Springfield, MA Parks and Recreation Department maintains twelve natural grass properties using organic practices. The Parks Department is very satisfied with the quality of these grass areas. Elements of the program include frequent aeration and careful application of organic fertilizers based on site-specific needs.

Artificial turf poses a number of health and environmental concerns. From an environmental and health standpoint, organically managed natural grass is a safer choice for lawns and sports fields.



Sod Solutions is committed to delivering earth friendly solutions to the green industry through innovation in turfgrass genetics such as improved aesthetics, higher performance and reduced irrigation, maintenance needs, and fertilizers ([Catalyst Technology](#)). To find the perfect grass for your lawn, check out our [Sod Selector Tool](#).

Subscribe to our e-newsletter below if you haven't done so already to receive the latest updates from Sod University.

Want to learn more about achieving a great lawn? Check out our other Sod University tips here.

Tags: environment, environmental health, lawn care, lawn maintenance, turfgrass