

FAQ: Glyphosate use at the University of Michigan

What is glyphosate?

Glyphosate is an herbicide. It is applied to the leaves of plants to kill both broadleaf plants and grasses.

Glyphosate was first registered for use in the U.S. in 1974. Glyphosate is one of the most widely used herbicides in the United States.

Unlike other herbicides that can move through soil into bodies of water, glyphosate binds tightly to soil and is broken down by bacteria in the soil.

Where on campus is glyphosate used?

Glyphosate is used on campus in the spot treatment of weeds, including poison ivy, in specific areas including:

- Sidewalk and parking lot cracks
- Tree rings
- Shrub and flower beds

How is glyphosate applied?

U-M uses the herbicide for spot treatment in targeted areas by trained, licensed applicators. Every U-M applicator is licensed by the Michigan Department of Agriculture and Rural Development, with additional oversight by U-M's Department of Environment, Health and Safety. Each applicator attends a minimum of 32 hours of training every three years to maintain their license. In addition to regular training, Grounds staff follow a management plan that reduces the risk of off-target exposure.

What are the associated risks with glyphosate?

Pure glyphosate is low in toxicity. The most substantial risk is occupational exposure if applicators do not take appropriate precautions while mixing the solution from concentrate. Once applied to weeds, the risk to human and environmental health is relatively low.

How might I be exposed to glyphosate?

You can be exposed to glyphosate if you get it on your skin, in your eyes or breathe it in when you are using it. You might swallow some glyphosate if you eat or smoke after applying it without washing your hands first. You may also be exposed if you touch plants that are still wet with spray. Glyphosate isn't likely to vaporize after it is sprayed.

What is the difference between agricultural use of glyphosate and its use on campus?

In agricultural settings, glyphosate is often applied broadly, such as to a farm field. On campus, it is applied in a targeted manner by spot treatment directly to weeds.

Why continue to use glyphosate?

- Glyphosate provides very effective weed control with small doses. Other, less effective products often require up to 4x as many applications, increasing the overall chemical use and significantly increasing labor costs.
- Unlike many other herbicides, glyphosate gets adsorbed by the particles in dirt and immediately starts to break down.
- Strategic, limited application of herbicides is currently necessary to maintain the aesthetic standards the university community expects.

Are alternatives being considered?

As part of our efforts to reach U of M's goal to reduce landscape chemical applications 40% by 2025, Grounds Services regularly tries out new products and approaches to landscape management. For example, Grounds Services is conducting a pilot on the Diag to assess the feasibility of using organic products and additional hand weeding in place of glyphosate. U-M has also taken preventive steps to reduce the need for weed control, such as improving soil health and designating areas of campus to have a more natural look.

What else is being done to reduce chemical use on campus grounds?

U-M has a sustainability goal to reduce landscape chemical applications 40% by 2025 and has so far achieved a 37% reduction. Efforts are guided by U-M's [Sustainable Land Management Guidelines](#) and include:

- Organic and low-impact herbicides and fertilizers where possible. 80% of campus lawns are managed using organic fertilizer.
- Improving soil quality to reduce the need for fertilizer and supplemental irrigation.
- Expanding natural areas and planting native trees and shrubs.
- Prescribed burns and the use of goats to control invasive plants.

Questions? Contact Rob Doletzky, Grounds Manager, at doletzky@umich.edu.