

Your Health at Risk: Glyphosate

Glyphosate developed in 1970s is a broad-spectrum systemic herbicide and an organophosphorus compound, specifically a phosphonate. Glyphosate is a non-selective herbicide, meaning it will kill most plants. It prevents the plants from making certain proteins that are needed for plant growth.

Glyphosate was first synthesized in 1950s. It was patented as a chemical chelator as it binds and removes minerals such as calcium, magnesium, manganese, copper, and zinc.

But it was the introduction of genetically engineered crops two decades later that fueled the sharp increase in the use of glyphosate. Those crops now account for most of the **corn, soy, sugar beets and canola** grown in the United States. However, a field test showed that **lettuce, carrots, and barley** contained glyphosate residues up to one year after the soil was treated with glyphosate.

As of 2010, there were more than 750 glyphosate products on the market.

How Is Glyphosate Used?

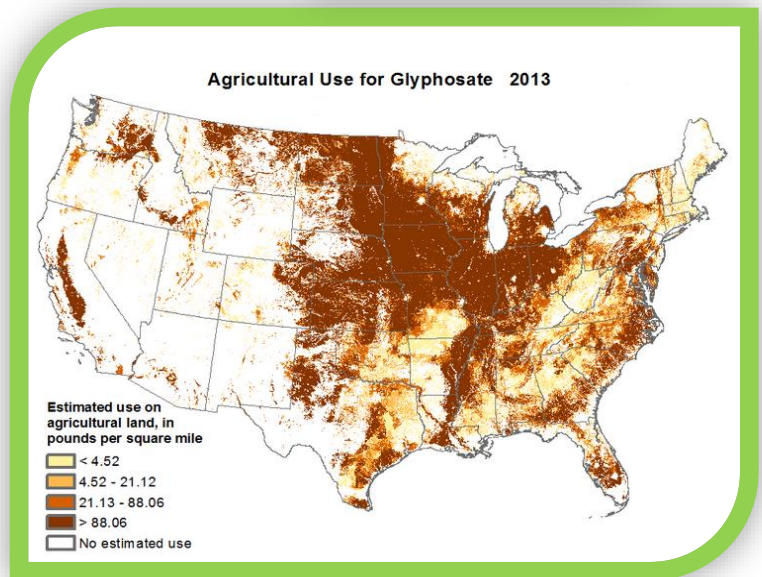
It is commonly used for agriculture, horticulture, viticulture, and silviculture purposes, as well as garden maintenance (including home use).

In many cities, glyphosate is sprayed in parks, playgrounds, golf courses, streets, sidewalks as well as crevices in between pavement where weeds often grow. (Pictured: Portland's affected areas)

Environmental Fate

Use of glyphosate to clear milkweed along roads and fields has led to a major decline in monarch butterfly and bumble bee populations .

Glyphosate-based herbicides may cause life-threatening arrhythmias in mammals. There is also evidence that such herbicides cause direct electrophysiological changes in the cardiovascular systems of rats and rabbits. In frogs, it was reported a significant induction of morphological changes in the tadpoles of frogs, from larval and tadpoles, including alteration of the size of the tadpole tail. Grass shrimps and fiddler crabs were found to be "slightly toxic". *More than 25 species of animals tested were impacted by glyphosate, causing a decrease in species health.*



Is Glyphosate Safe?

In a 2014, in an article it reported a significant association between B-cell lymphoma and glyphosate occupational exposure. In March 2015, the World Health Organization's International Agency for Research on Cancer classified glyphosate as "probably carcinogenic in humans".

Corrosive effects – mouth, throat and epigastric pain and dysphagia – are common. Kidney and liver impairment are also frequent, and usually reflect reduced organ perfusion. Respiratory distress, impaired consciousness, pulmonary edema, infiltration on chest X-ray, shock, arrhythmias, renal failure requiring haemodialysis, metabolic acidosis, and hyperkalaemia may occur in severe cases. Bradycardia and ventricular arrhythmias often present prior to death.

Pets may be at risk if they touch or eat plants that are still wet with spray from products containing glyphosate. Animals exposed to products with glyphosate may drool, vomit, have diarrhea, lose their appetite, or seem sleepy.

Food Chain

A whopping 10 out of 24 breakfast food items tested positive for glyphosate. They expected that trace amounts would show up in foods containing large amounts of corn and soy. However, they were unprepared for just how invasive this poison has been to our entire food chain.

The group tested flour, cornflakes, instant oatmeal, bagels, yogurt, bread, frozen hash browns, potatoes, cream of wheat, eggs, non-dairy creamers and dairy-based coffee creamers, according to its report. —***“suggests that Americans are consuming glyphosate in common foods on a daily basis”.***

“Especially worrisome are the levels of glyphosate found in some organic eggs and dairy creamers, animal products which are not sprayed directly with glyphosate. This indicates that the chemical is entering the food chain and building up in the tissues of animals—and humans.”



What you can do

- Read Labels. Stay away from ingredients you cannot pronounce.
- Purchase Organic.
- Support your local organic farms and farmers markets.
- Stay away from crops treated with glyphosate. For example **cotton**, which is the main ingredient in feminine hygiene products which is linked to toxic shock syndrome.
- For Home Use turn to natural alternatives for weed control and cleaning products.