



To: Chairwoman Gobi, Chairman Pignatelli, and members of the Joint Committee on Environment, Natural Resources, and Agriculture

From: Chanah Haigh, Policy intern with MASSPIRG

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In Support of S.499 *An Act relative to the use of Glyphosate on public lands*

My name is Chanah Haigh. I'm a Policy intern for Massachusetts Public Interest Research Group (MASSPIRG). MASSPIRG is a member-supported, statewide, non-partisan and non-profit public interest advocacy organization fighting for consumers for 45 years.

I am here to testify in support of S. 499, *An Act relative to the use of Glyphosate on public lands*, filed by Senator Jason Lewis.

Most of us take it for granted that the food we buy for our families, or the grass we play on in the schoolyard, is not putting our health at risk. However, new research, including that done by the World Health Organization, found that Roundup, and other glyphosate-based herbicides, could pose significant risks to human health.<sup>1</sup> Glyphosate is a chemical compound found in brand name products such as Roundup. First introduced in the early 1970's, Roundup, and its generic equivalents (given that the patent ran out on Roundup) have become the most widely used agricultural chemical in U.S. history.<sup>2</sup> Nearly 1.8 million tons of glyphosate have been used in the U.S. since its introduction in 1974. Worldwide, 9.4 million tons of the chemical have been sprayed onto fields.

Glyphosate herbicides have been recognized by the World Health Organization as a probable carcinogen. They are also linked to birth defects and kidney and liver diseases. Because Monsanto is not required to list the other ingredients which make up Roundup, research on the overall impact of Roundup has been difficult. Monsanto is not required to list the inactive ingredients in roundup, under the assumption that they are not harmful. However, two studies

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<sup>1</sup> Sharon Lerner, "New Evidence About The Dangers of Monsanto's Roundup," May 17, 2016, The Intercept

<sup>2</sup> Douglas Main, "Glyphosate Now The Most-Used Agricultural Chemical Ever," Feb. 2, 2016, Newsweek

determined that herbicides like Roundup, are more likely to cause cell- cycle dysregulation, a hallmark of cancer, than glyphosate alone<sup>3 4</sup>. In fact, another study showed that one of these so called inert ingredients, POEA, were between 1,200 and 2,000 times more toxic to cells than glyphosate, officially the “active” ingredient. POEA also could impact human placental cells and aromatase, an enzyme that affects sexual development.

Despite the full effects not being known, there is clearly enough evidence to back the banning of spraying this dangerous chemical on our public lands, in anything but a last case scenario.

Glyphosate is slow to evaporate and to degrade in soil. It attaches to the soil, finds its way into groundwater, and is not discriminatory about what it kills. When it is sprayed, it can stay on the surface and come into contact with children, adults, and animals.

One study by the U.S. government sampled waterways in 38 states, and found glyphosate in the majority of rivers, streams, ditches, and wastewater treatment plants tested and 70% of rainfall samples. It is ingested through beer, wine, and many agricultural products<sup>5 6</sup>. The US Department of Agriculture in 2011 found glyphosate residue in 90.3% of soybean samples. It's also found in corn, wheat, and many more grains and beans. A study by the Detox Project found glyphosate in the urine of 93% of Americans tested<sup>7</sup>. When we spray glyphosate on our weeds in local parks and schools we have no way to control where it will end up or prevent its being ingested by people. The benefits of the ease of weed control are far outweighed by the health concerns and environmental impacts caused by glyphosate.

Children are put at a higher risk of being exposed to glyphosate and ingesting it from local sources. They roll in the grass, wash their hands less, and some young children even eat grass. Because we spray Roundup in schools and playgrounds, children are picking up and ingesting glyphosate directly off the plants.

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<sup>3</sup> Julie Marc, Odile Mulner-Lorillon, Sandrine Boulben, Dorothée Hureau, Gaël Durand, and Robert Bellé, “Pesticide Roundup provokes cell division dysfunction at the level of CDK1/cyclin B activation,” February 22, 2002, Chemical Research in Toxicology

<sup>4</sup> Julie Marc, Odile Mulner-Lorillon, Robert Bellé, “Glyphosate-based pesticides affect cell cycle regulation,” Nov. 6, 2003, Biology of the Cell

<sup>5</sup> Emily Cassidy, “‘Extreme levels’ of Herbicide Roundup Found in Food,” Apr. 18, 2014, Environmental Working Group

<sup>6</sup> Caroline Copley, “German beer purity in question after environment group finds weed-killer traces,” Feb. 25, 2016, Reuters

<sup>7</sup> “UCSF Presentation Reveals Glyphosate Contamination in People across America,” May 25, 2015, The Detox Project

## **We have Alternatives**

Roundup is so frequently used because it's convenient. However, Glyphosate Herbicides are not our only option for controlling weeds. There are replacements that have been successfully used in places such as Denver, CO, Charlottesville, VA, Portland, OR, here in Wellesley, MA, and in many other communities.

Beyond reducing the harmful effects of glyphosate, banning these herbicides provides the opportunity to implement safe, sustainable practices that promote the health of our environment and the integrity of our land. Organic composting, which crowds out weeds, increases biodiversity in the soil, making it stronger and healthier. Mowing the grass longer (at least three inches) encourages deeper roots. This allows the grass to access more nutrients and reduces the need for fertilizers and the risk of runoff. Planting native plants is good for wildlife and supports pollinators, reducing our harmful impact on the environment. All of these actions reduce weeds without a harmful impact on health and environment. How can we justify continuing the use of glyphosates for the sake of convenience when it poses a public health risk and its alternatives are both safe and sustainable?

**Please support S. 499** *An Act relative to the use of Glyphosate on public lands*

We ask that you ban the use of glyphosate herbicides on public land so that they don't have the opportunity to enter our waterstream and our food. Ban glyphosate so that the schools, parks, and playgrounds where children play are free from this harmful chemical.

Senate Bill 499 is an opportunity to replace a harmful and dangerous practice with sustainable and healthy methods. We hope you will pass the bill quickly from your committee.