

## Restricting Roundup By Emily Pfister

Emily Pfister is the founder of Arlington-based Alliance for Responsible Food and Environmental Policy (ARFEP). ARFEP works to end the use of harmful pesticides, including glyphosate and neonicotinoid-based products.

It's time to hold a public education campaign in Arlington to stop people from using Roundup and other pesticides containing glyphosate on their lawns and gardens. We must examine new evidence and hold our elected officials accountable for protecting our health. Arlington County should set an example for its residents by discontinuing the use of glyphosatecontaining pesticides on invasive species and on the roses at Bon Air Park. The County must also launch a public education campaign encouraging residents to stop using Roundup and other pesticides containing glyphosate.

New scientific evidence shows that probable harm to human health could begin at ultra-low levels of glyphosate exposure—as low as 0.1parts per billion (ppb). In the new report, <u>Glyphosate: Unsafe on Any Plate</u>, residues of glyphosate found on popular foods measured from 289.47 ppb to 1,125 ppb. Cheerios, for example, can have residues of glyphosphate as high as 1,125 ppb. In the U.S. the safe allowable level of glyphosate residues in drinking water is 700 ppb. Glyphosate residues have been found everywhere in the environment, from tampons and sterilized cotton to breast milk.<sup>1</sup>

The authors of <u>Glyphosate: Unsafe on Any Plate</u> cite studies that have shown that glyphosate "can cause significant damage to the livers and kidneys of rats at 700 ppb." Studies in rats are considered the most appropriate to determine the Acceptable Daily Intake (ADI) of a chemical. What's more, the report authors cite EPA warnings that glyphosate at only 700 ppb can cause "problems with their kidneys or reproductive difficulties." In 2015, glyphosate <u>was ruled a</u> <u>probable carcinogen</u> by the World Health Organization's International Agency for Research on Cancer after an examination of relevant research.

An international team of scientists is calling for a much lower glyphosphate ADI to be set -- 70 times lower than the level currently allowed by the EPA in the United States.<sup>2</sup> While other jurisdictions like France, the Netherlands, Argentina, Sri Lanka, and Malta are banning glyphosate entirely, the United States in 2013 raised the amount of glyphosate allowed to be

sprayed on oilseed and other crops. Our country seems to be moving in a direction opposite that indicated by peer-reviewed independent research.

To provide a little history, glyphosate was originally patented in 1964 as a pipe cleaner. It is a chemical chelator, which means that it bonds to chemicals in the soil and makes them unavailable to plants. These chemicals include iron, manganese, zinc, boron and other trace minerals of importance to plant life. The disruption of minerals in the soil has implications for human health: glyphosate also disrupts the human gut microbiome by inhibiting the action of certain enzymes important in regulating amino acids in the body.<sup>3</sup> Monsanto repeatedly assured the public that their main herbicide containing glyphosate, Roundup, was biodegradable and as harmless as salt until they were successfully <u>sued by the New York Attorney General in 1996</u> and lost a case that determined that they were using false and misleading advertising.

The original Acceptable Daily Intake (ADI) set by the EPA toxicology division for glyphosate was 0.1 mg per kilogram of body weight per day (mg/kgbw/day). That was in the early 1980s. Then in 1985, the Reagan Administration classified glyphosate as a probable carcinogen. Despite this, the current ADI is 17.5 times higher than the original one set in the 1980s. What's more, in the 1990s the EPA re-classified glyphosate as class E, or not a human carcinogen.

Recent scientific studies have been published linking glyphosate to cancer<sup>4</sup>, endocrinedisrupting effects<sup>5</sup>, kidney and liver damage at low doses in rats<sup>6</sup>, binding of vital nutrients in soil<sup>7</sup>, and antibiotic-resistance in bacteria.<sup>8</sup> These new studies should be examined by our local Arlington County government in order to decide whether or not the use of pesticides containing glyphosate, like Roundup, should be curtailed.

Americans have applied 1.8 million tons of glyphosate since it was brought on the market in 1974.<sup>9</sup> In a given year, 300 million pounds of glyphosate-based herbicides are sprayed across the country. Isn't it time to stop spraying?

Please help spread the word. Visit <u>www.arfep.org</u> for more information. Contact <u>arfep4us@gmail.com</u> to get on the ARFEP mailing list and get updates about this campaign. You can also learn more at a presentation by MIT research scientist Stephanie Seneff on Friday, April 28 in Arlington. The presentation will begin at 6 pm in the Community Room at 555 N. Thomas Street, Arlington, VA, 22203.

References:

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## Editor's Note:

The Sierra Club has not yet taken an official position on glyphosphate, but you can read the Club's coverage of the state of California's glyphosphate-focused interactions with Monsanto at <u>https://sierraclub.org/sierra/2016-1-january-february/green-life/steaming-cup-ofherbicide</u>. We also invite you to learn more about the EPA's Science Advisory Panel's recent (and still pending) deliberations on glyphosphate: <u>https://www.epa.gov/sap/meeting-materials-december-13-16-2016-scientific-advisory-panel</u>

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