Testimony for HB0472: Agriculture - Use of Glyphosate - Prohibition Bill Sponsor: Sheila Ruth Committee: Environment and Transportation Organization Submitting: Food & Water Watch Person Submitting: Amanda Starbuck Position: FAVORABLE

Food & Water Water is a national nonprofit advocacy organization with thousands of supporters in Maryland. We are pleased to support Delegate Ruth's bill to prohibit the use of glyphosate within Maryland.

Glyphosate (the active ingredient in Roundup herbicides) is the most widely applied herbicide in the world.¹² Monsanto (today owned by Bayer) has long marketed glyphosate as a safe method for controlling weed populations on the field and around the home. However, study after study have revealed the harmful effects of glyphosate:

- Glyphosate is a probable human carcinogen, according to the World Health Organization's International Agency for Research on Cancer;³
- Roundup and other glyphosate herbicides are possible endocrine disruptors, meaning they can interfere with the body's hormones and lead to chronic health problems;
- Glyphosate also alters the gut microbiome, possibly contributing to a wide range of human health impacts related to gut health that scientists are just beginning to understand; and⁴
- Glyphosate use has also led to widespread ecological contamination, can be toxic to many types of wildlife, and also impacts pollinators like Monarch butterflies and honeybees.

Unfortunately, the U.S. Environmental Protection Agency's (EPA) approval process for chemical herbicides remains inadequate and outdated. EPA only considers glyphosate in isolation, thereby excluding all studies addressing the synergistic effects of glyphosate formulations as they are used. EPA also overwhelmingly uses industry-submitted studies, which a Food & Water Watch analysis found are several times less likely to find evidence of glyphosate's toxicity

¹ Bøhn, T. et al. "Compositional differences in soybeans on the market: Glyphosate accumulates in Roundup Ready GM soybeans." *Food Chemistry*. Vol. 153. June 15, 2014 at 207.

² Bøhn, T. et al. "Compositional differences in soybeans on the market: Glyphosate accumulates in Roundup Ready GM soybeans." *Food Chemistry*. Vol. 153. June 15, 2014 at 207.

³ World Health Organization. International Agency for Research on Cancer. [Issue brief]. "IARC Monographs Volume 112: Evaluation of five organophosphate insecticides and herbicides." March 20, 2015 at 1; Food and Agriculture Organization of the United Nations and World Health Organization. [Summary Report.] "Joint FAO/WHO Meeting on Pesticide Residues." May 16, 2016 at 2; World Health Organization. [Online Q&A.] "Pesticide Residues in Food?" May 2016; Davies, Stephen. "Glyphosate unlikely to pose risk through diet, WHO says." *Agri-Pulse*. May 16, 2016.

⁴ Leino, Lyydia et al. "Classification of the glyphosate target enzyme (5-enolpyruvylshikimate-3-phosphate synthase) for assessing sensitivity of organisms to the herbicide." *Journal of Hazardous Materials.* Article in Press.

compared to studies from the open literature. In contrast, the World Health Organization's comprehensive assessment that relied exclusively on publicly-available studies concluded that glyphosate is "probably carcinogenic to humans."⁵

In absence of federal action, state regulators need to step up to protect environmental and public health. Roundup has lost its effectiveness for farmers, as more and more superweeds resistant to it have sprung up. It is a suspected carcinogen and a likely contributor to a wide-range of health conditions. And its environmental contamination is nearly ubiquitous. For these reasons, Food & Water Watch requests a favorable report for H.B. 0472.

⁵ World Health Organization. International Agency for Research on Cancer. (2017). *Some Organophosphate Insecticides and Herbicides, Volume 112: IARC Monographs on the Evaluation of Carcinogenic Risks to Humans.* Lyon: International Agency for Research on Cancer at 398 to 411.