



TO: The Honorable Joseline A. Pena-Melnyk, Chair
Members, House Health and Government Operations Committee
The Honorable Sheila Ruth

FROM: Dr. Mike Ichniowski

DATE: March 13, 2024

RE: **SUPPORT** – House Bill 1190 – *Pesticides - PFAS Chemicals - Prohibitions*

The Maryland Chapter of the American Academy of Pediatrics (MDAAP) is a statewide association representing more than 1,100 pediatricians and allied pediatric and adolescent healthcare practitioners in the State and is a strong and established advocate promoting the health and safety of all the children we serve. On behalf of MDAAP, we submit this letter of **support** for House Bill 1190.

PFAS (Per- and Poly-Fluoro Alkyl Substances) are fluorinated compounds known as “forever chemicals” because they do not break down and persist unchanged in the environment. There are 66 PFAS chemicals present as the active ingredient in pesticides licensed for use in Maryland.

- Children are uniquely susceptible to the toxic effects of chemicals. Substances that interfere with growth and brain development can have life-long impacts.
- Ingestion of food and water contaminated with PFAS and inhalation of sprayed PFAS-containing pesticides are the most common routes of exposure. This includes ingestion of food crops treated with PFAS-containing pesticides.
- Adverse health effects from PFAS include cancers, immune suppression, thyroid disease, impaired kidney function, pre-eclampsia, decreased birth weight, liver disease, and increased serum cholesterol.
- Ongoing use of PFAS-based pesticides adds to children’s exposure to these toxins, leading to substantial lifetime burden and increased risk of toxicity.

PFAS have been widely detected in human blood samples and **most commonly enter the body by ingestion of contaminated food or water, or through inhalation of sprayed PFAS and dust particles contaminated with PFAS.** Once present, they are poorly excreted and persist in the human body, with half-lives often measured in years to decades. Some of these chemicals have also been found to bioaccumulate within tissues in the body. With this environmental and circulatory persistence, **the potential for lifetime exposure and accumulation of PFAS is substantial, especially in children,** who would have higher levels of exposure relative to their weight over a longer span of years.

Children and fetuses are uniquely susceptible to the effects of toxic chemicals, **a vulnerability to minimal amounts that contradicts the commonly held misconception that it is the dose that determines the toxicity of a particular substance.** PFAS can cross the placenta and enter the fetal circulation, and the amount to which

the fetus is exposed relative to weight is far greater than that of the mother. **Toxic exposures during the time of brain and organ formation and of early growth can have long-lasting impacts on an unborn child,** interfering with normal neurologic development. Infants and young children also have higher levels of exposure to toxic substances in their environment. They eat and drink more relative to their body weight than adults, they breathe more rapidly, and their frequent hand-to-mouth behaviors increase inadvertent non-food ingestions, such as from outdoor soil or contaminated house dust. It is easy to imagine the risk of ingestion for a child playing outdoors on or near a recently treated field, yard, or playground.

Animal studies and *in vitro* human cell studies have identified the following adverse health effects from fluorinated PFAS pesticides, listing some of those currently approved for use in Maryland:

- Teratogenicity (harm to fetal growth, anatomy, and development): Bifenthrin, Fipronil, Fludioxonil, Fluvalinate, Oxyfluorfen, Trifluralin
- Immunotoxicity: Bifenthrin, Fipronil, Flonicamide
- Endocrine disruption: Fludioxonil, Fluvalinate, Fipronil
- Carcinogenicity: Trifluralin, Fluopyram
- Kidney and liver toxicity: Fluazifop-*p*-butyl
- Neurotoxicity: Bifenthrin, Bromethalin

(This is not a complete list but represents a sampling of studies involving fluorinated PFAS pesticides).

Opponents of this bill may claim economic hardship should these products be banned, despite the availability of alternative non-PFAS pesticides, approved in Maryland, that could be used in their place. This perspective also fails to consider the costs of continued contamination of the environment, food and water supplies, and the subsequent impacts on human health and increased costs of medical care. Costs for cleanup and remediation will fall to state and local governments, as well as taxpayers; health care costs will be borne by patients, providers, and health insurers. These substantial costs can't be ignored in evaluating the economic impact of this bill.

Because House Bill 1190 would decrease exposures to a significant source of PFAS, all Marylanders, especially the most vulnerable, our children, would benefit from the reduction in the harmful impacts of these chemicals. **MDAAP requests a favorable report on this proposed legislation.**

For more information call:

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