February 10, 2025

Testimony of Manojit Basu, PhD, Vice President of Science Policy, CropLife America

Re: Mayland House Bill 386, "Pesticides – PFAS Chemicals – Prohibitions"

Chair Pena-Melnick, Vice Chair Cullison and distinguished members of the House Health and Government Operations Committee:

Thank you for the opportunity to provide testimony on HB 386, which would prohibit pesticide products regulated by the Maryland Department of Agriculture (MDA) and by the Environmental Protection Agency (EPA) that contain fluorinated chemistry.

We respectfully oppose this legislation as it is unnecessary with existing robust federal regulations of pesticides. HB 386 will disadvantage Maryland residents and farmers, limiting their protection from harmful pests and invasive species.

HB 386 is unnecessary as all pesticides, including those formulated with fluorinated chemistry, must be registered by the Environmental Protection Agency prior to applying for and receiving state registration in Maryland. To approve a new pesticide, EPA must determine that, when used in accordance with the label, it will not cause unreasonable adverse effects on the environment and does provide a reasonable certainty of no harm to human health. EPA must periodically review registered pesticides to ensure they continue to meet these robust safety standards. Due to the rigorous review and risk assessment process, there is extensive scientific data available about EPA-registered pesticides unlike other products.

Defining "PFAS"

"PFAS" is an acronym for per- and polyfluoroalkyl substances and describes a large class of thousands of fluorinated chemical substances. Newer applications of fluorinated chemistry have beneficial properties that increase their durability and resistance to heat, water, and oil. Those unique properties help improve products like cars, electronics, and medicines. In some EPA-approved pesticides, fluorinated chemistry can also help improve adherence and provide better pest protection.

There are important differences between different types of fluorinated chemistry. Some studies suggest that legacy long-carbon-chain "PFAS" may have negative human health and environmental effects including persistence, bioaccumulation, and/or toxicity. This finding has led to considerable regulatory attention. But the science surrounding fluorinated chemistry has significantly advanced since the development of traditional "PFAS," leading to the development of molecules with newer applications—such as those found in fluorinated pesticides—that do

not exhibit the negative effects associated with long-carbon-chain "PFAS." For these and other reasons, it is neither scientifically accurate nor appropriate to group all fluorinated chemistry together.

Broad "PFAS" definitions categorize newer chemistries alongside traditional long-carbon-chain "PFAS," leading to confusion about safety and the need for further regulation. The U.S. EPA has taken a scientific approach and adopted a definition of "PFAS" that requires that at least two carbon atoms be either fully or partially fluorinated. *See* 40 C.F.R. Part 705.

In HB 386 the PFAS chemical class is defined as chemicals that contain at least one fully fluorinated carbon. This goes beyond the definition adopted by EPA, and would result in the restriction of hundreds of pesticide products which have already satisfied the safety requirements of both EPA and the MDA. Long-carbon-chain PFAS which earned the chemical class the "forever chemicals" nickname, typically have six or more fully fluorinated carbons. The scientific community has consistently observed that the length of time that PFAS chemicals persist in the environment and the body is directly related to the length of the fluorinated carbon chain. Pesticides that have been registered with EPA and MDA have three fluorinated carbons, at most, with majority of pesticides containing only one fully or partially fluorinated carbon. Moreover, persistence of pesticides and their degradants in the environment and the body, and the implications of that persistence for risk, is reviewed as part of the risk assessment during the registration process.

The definition of what constitutes a PFAS defined in HB 386 resembles the current OECD definition, published in a 2021 report defining "PFAS as a "single fully fluorinated methyl or methylene carbon moiety." That definition is very broad and includes several thousand chemical substances. In that same report, the OECD recognized how broad its definition was and noted in the report that "the term 'PFASs' is a broad, general, non-specific term, which does not inform whether a compound is harmful or not." This directly conflicts with EPA's science-based approach, defining PFAS more narrowly "to focus on substances most likely to be persistent in the environment, while excluding those substances that are "lightly" fluorinated (i.e., the molecule only contains unconnected CF2 or CF3 moieties)."[1]

The pesticide registration process in the U.S. uses best available science.

All EPA-approved pesticides, including those with fluorinated chemistry, are already subject to rigorous scientific review under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). EPA has stated that "regardless of the evolving definition of PFAS, pesticides undergo a rigorous scientific assessment prior to registration" ensuring that "fluorinated pesticides in commerce have met appropriate risk-based standards for registration." Additional regulations targeting

[1] EPA (US Environmental Protection Agency). 2020. Response to Public Comments on EPA's Registration of the New Active Ingredient, Fluazaindolizine. Office of Pesticide Programs. EPA-HQ-OPP-2020-0065.

pesticides with fluorinated chemistry would be redundant, costly to farmers and consumers, and yield no additional safety benefits.

Pesticide risk assessment in the United States is built upon a comprehensive framework that aims to ensure the protection of human health and the environment. This framework involves rigorous testing protocols and risk assessment methodologies to evaluate the safety of pesticide products before they are approved for use.

One key aspect of the robustness of pesticide risk assessment in the U.S. is the extensive data requirements that pesticide manufacturers must provide. These requirements mandate the submission of detailed information on the chemical composition, toxicity, environmental fate, and potential exposure pathways of the pesticide. This data is thoroughly reviewed by career scientists at regulatory agencies including EPA, FDA, USDA, Fish and Wildlife Services, and National Marine Fisheries Services to assess the potential risks associated with the use of the pesticide.

The EPA employs sophisticated risk assessment models and tools to evaluate the potential health and environmental impacts of pesticides under various scenarios. These models take into account factors such as exposure levels, toxicity endpoints, and environmental fate to estimate risks to human health and ecological systems accurately.

Moreover, the EPA regularly updates its risk assessment methodologies and guidelines to incorporate the latest scientific advancements and address emerging concerns including PFAS. This adaptive approach ensures that pesticide risk assessments remain robust and reflective of current scientific understanding.

This combination of stringent data requirements, advanced risk assessment tools, and adaptive regulatory practices contributes to the robustness of pesticide risk assessment in the United States, enhancing the protection of human health and the environment.

Importance of Integrated Pest Management

The proposals outlined in this bill could result in both short- and long-term consequences for agriculture in Maryland and beyond. Farmers use pesticides when needed on their operations, and it is critical that they have access to differing modes of action to prevent resistance development. Removing a tool from growers, like a fluorinated pesticide, can drastically reduce the modes of actions available to them. This in turn will result in pesticide resistant weeds, insects, and fungal diseases that can jeopardize an entire operation. This would result in immediate impacts on Maryland growers, and a high likelihood of spreading these resistant pests across the U.S.

Conclusion

HB 386 will disadvantage Maryland's farmers and residents as they will likely lose access to critical products, without providing commensurate benefits to human health or environmental protection. Pesticides provide vital protection against harmful, invasive, and non-native species like insects and weeds that can devastate agricultural production and threaten the health and well-being of our communities. Relying on the rigorous testing already done by EPA would ensure that Maryland farmers maintain access to pesticides for their own critical uses.

Thank you for the opportunity to provide our perspective on HB 386. We urge you to not move forward with restricting PFAS in pesticides.