

DEPARTMENT OF ENVIRONMENTAL HEALTH AND ENGINEERING

To: House Health and Government Operations Committee
Testimony on: **HB570 Pesticides – Mosquito Control Products and PFAS Chemicals**
Position: Favorable
Hearing Date: March 2, 2022

My name is Ana Maria Rule; I am Assistant Professor at the Johns Hopkins Bloomberg School of Public Health in the department of Environmental Health and Engineering. *The opinions expressed here are my own and do not necessarily reflect the views of The Johns Hopkins University.* I would like to submit this written testimony **in favor of HB570**, which would ensure that pesticide products that are currently being used for mosquito control in Maryland will be PFAS-free.

As an exposure scientist focused on Public Environmental Health research, I am concerned that PFAS, which we know is a family of chemicals that persist for many years in the environment and are associated with adverse health effects, have been found by an EPA-accredited lab in Permanone 30-30, a pesticide that is widely used by the Maryland Department of Agriculture (MDA) for mosquito control, and that two other pesticides listed as options in MDA's mosquito control program – Mavrik Perimeter and Vectobac – were found to contain PFAS levels of concern when tested by the Massachusetts Department of Environmental Protection.

While additional samples provided by MDA and the pesticide manufacturer Bayer were found to be PFAS-free when tested by another EPA-approved lab using a new testing method, this only highlights what anyone that works in the lab, such as myself, can tell you: **there is inherent variability in every batch of samples, and in every test method, and there are many sources of potential PFAS contamination**, such as the plastic containers where pesticides are stored and transported. **This is why annual testing is needed to rule out another potential contamination before it reaches the environment. Testing multiple samples is the right Public Health course of action.**

We know that historically PFAS has been used in pesticides, and Kyla Bennett's testimony underscores this. In addition, you have testimony from Dr. Grandjean of Harvard T.H. Chan School of Public Health, whose research indicates that PFAS [diminish the effectiveness of vaccines](#), and elevated PFAS levels are associated with [Covid-19 susceptibility](#) and with an [increased risk of a more severe course of COVID-19](#).

The widespread use of these products in our state's communities is concerning because of the persistence of PFAS in the environment, which means that with every application, we are adding to the environmental burden and increasing the amount of PFAS and other chemicals that ends up in rivers, lakes, soil, plants, and animals, and therefore the concentrations that people are exposed to through food, air, and water.

The existing research to date suggests that high levels of exposure to PFAS leads to changes in liver function, increased risk of kidney and testicular cancer, decreased vaccine response in children, increased risk of high blood pressure in pregnant women, and decreases in infant birth weights.

Unfortunately, similar health effects have been associated with exposure to pesticides, which are also being used for mosquito control in Maryland, adding to the environmental burden I mentioned earlier.



DEPARTMENT OF ENVIRONMENTAL HEALTH AND ENGINEERING

I am very concerned about the fact that, to date, there is no systematic testing of mosquito control products, and that there is no research on the effects of combining these chemicals, although we know that they both cause similar long-term health effects that could potentially be additive or synergistic, especially in vulnerable populations like children and pregnant women.

By passing HB570 Pesticides – Mosquito Control Products and PFAS Chemicals, this committee has the opportunity to truly protect the health of Maryland citizens. We need products to routinely be tested, so that we stop adding to the already huge chemical burden of our environment.

Thank you for your consideration,

A handwritten signature in black ink that reads "Ana Maria Rule".

Ana Maria Rule, PhD, MHS
Assistant Professor
Johns Hopkins Bloomberg School of Public Health
arule1@hu.edu