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Pesticides - PFAS Chemicals - Prohibitions

Submitted by: Caitlin A Ceryes, PhD, MPH, RN, Board Member, Maryland Pesticide Education Network (MPEN)
Hearing Date: February 12th, 2025
POSTION: SUPPORT

Dear Chair Pena-Melnyk, Vice Chair Cullison and Members of the House Health & Government Operations Committee:

My name is Caitlin Ceryes, and I am a registered nurse and an assistant professor at Towson University in the College of Health Professions. As a nurse, public health professional, and expecting mother, I am deeply concerned about the use of PFAS-containing pesticides in our state. I am **writing in support of HB0386,** which would require the Maryland Department of Agriculture to develop and maintain a list of registered pesticides that contain PFAS chemicals as an active ingredient on the label and phase out the use of such pesticides in Maryland for all purposes by June 2028.

Impact on Pregnant People and Infants
PFAS-contaminated pesticides represent a significant exposure pathway for pregnant individuals and their children. Such exposures pose substantial risks to both. Studies have shown that maternal PFAS exposure can increase the risk of miscarriage, preterm birth, and having a baby with low birth weight and length. PFAS are known to cross the placental barrier, impacting fetal thyroid hormone levels, which are crucial for healthy fetal development.

The effects of in-utero PFAS exposure persist into childhood. Epidemiologic studies have linked higher maternal PFAS concentrations during pregnancy to poor immune functioning, increased susceptibility to certain infections, and lowered vaccine responses in children. Possibly compounding these negative effects are ongoing infant and childhood PFAS exposures from contaminated infant formula and breastmilk, each of which have been shown to contain these toxic chemicals.

PFAS Impacts on Fertility
PFAS exposures are also known to disrupt reproductive hormones and are linked with delayed puberty onset and poor fertility outcomes. In women, higher blood PFAS levels are associated with a significant reduction in the likelihood of pregnancy and live birth by as much as 40% when compared to those with lower levels. In men, PFAS exposures are associated with increased risk for testicular cancer and decreased sperm quality.

PFAS in our bloodstreams:
I am part of a team of scientists studying PFAS levels in Marylanders. This study doesn't just look at what is in the environment but looks at the amounts of PFAS that are in your constituents' blood streams.

In this study, we have 6 women and 3 men of childbearing age. All these participants had detectable levels of PFAS in their blood. PFAS levels for all of these individuals were above the National Academies of Science's level of clinical concern (2ng/mL), and several were much higher (e.g., the highest female's level was 11.02ng/mL and the highest male's was 15.02ng/mL). Three of these participants reported that they are currently experiencing reproductive health issues, all of whom have 4 - 5 detectable PFAS compounds in their blood.

Why we need HB0386

As an expecting mother, I have of course attempted to limit my exposure to these chemicals to benefit my unborn child's development. Especially as children are likely to encounter pesticides that have settled in dust and soil while playing, I worry about my four-year old's exposures and their potentially lifelong impacts. I am also mindful of the thousands of couples currently experiencing infertility. How can we limit our exposures if PFAS are liberally sprayed in our environments without our knowledge? We could not possibly change our behaviors enough to avoid every exposure to the over 1,000 PFAS containing pesticides in Maryland. That is why we need this legislation.

By passing **HB0386**, you would protect every Marylander, including pregnant people, infants and children, from ongoing exposure to these toxic chemicals. Your vote would have an impact on generations to come.

I urge you to vote "yes" on HB0386. Thank you for your consideration.

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