



**Q&A Transcript**  
**from Pesticides & The Chesapeake Bay Watershed Project Conference**  
**November 30, 2021 – Day 2 Session**

*Some questions were answered live and those answered below were typed in by presenters*

**Asker:** Emily Ranson

**Question:** I was watching a video about cooking pans last night, and America's Test Kitchen said that any nonstick pans made after 2013 are safe. For the consumer pans, is it really a different chemical, or is it just a reformulation of an old one?

**Answer:** I think it's an excellent idea. PFAS should be regulated as a class, and all non-essential uses should be banned. PFAS in food packaging and carpets definitely falls into the category of non-essential. Maryland has a bill pending to ban pfas in food packaging and carpets.

**Asker:** Ian Hartwell

**Question:** Can you post a link to the table showing the number of studies in different media, and does to come with a bibliography?

**Answer:** <https://pfastoxdatabase.org/> (Click on "Database") You can download the Study List at the bottom of the Database page. The URL to the study on PubMed is in Column U.

**Asker:** Anonymous Attendee

**Question:** You said PFAS was high in Permanone. Can you explain what you found and the toxicity level of Permanone?

**Answer:** 3,500 ppt of PFOA; 630 ppt of HFPO-DA. But EPA's second test found none.

**Asker:** Del. Jen Terrasa (she/her)

**Question:** Did you say pfas is in Frontline?

**Answer:** Yes, it is! 😊

**Asker:** Anonymous Attendee

**Question:** If a mosquito control pesticide has PFAS in it, eventually it will get washed into the soil and waterways, what are the long-term impacts of it being a “forever” chemical? Is there a minimum number of fluoride bonds in just one carbon atom to have the forever properties?

**Answer:** Every fluorine-carbon bond is difficult to break... one is enough to make it difficult to destroy.

**Asker:** Susan Beal

**Question:** Given the propensity for the recombination of these PFAS compounds during various treatments, what is the implication of fluoridated water treatment policies (and other fluoride sources - like toothpaste waste in the water, as a simple example) in the generation of increasing amounts of environmental PFAS? Sure, some would say this is minor compared to the application of pesticides, but these sources are perhaps even more ubiquitous than are pesticides. Thanks for this excellent information

**Answer:** The fluoride in toothpaste, mouthwash, and water (for towns that fluoridate their water supplies) is usually NaF (sodium fluoride) or sodium fluorophosphate (NA<sub>2</sub>PO<sub>3</sub>F) and are not PFAS.

**Asker:** Del. Jen Terrasa (she/her)

**Question:** Can you share Kyla's contact info again here or in the chat?

**Answer:** 508-230-9933 kbennett@peer.org

**Asker:** Anonymous Attendee

**Question:** I understand Mavrik Perimeter was tested by Mass. Dept of Environmental Protection. Mavrik is a product that Mds mosquito control website lists as one they might use. How much PFAS was found in Mavrik and has your state tested other pesticides for PFAS?

**Answer:** MADEP found over 16,000 ppt of PFAS in Mavrik. Yikes. I have to say, MADEP took our findings very seriously, and tested about 10 different pesticides on their own. Then they did not use any of the pesticides they found PFAS in.

**Asker:** Mike Ichniowski MDAAP

**Question:** Do PFAS chemicals stay suspended in water or do they eventually settle to the bottom?

**Answer:** Both. They are in both the water and in the sediments. Check out the website [pfas-1.itrcweb.org](http://pfas-1.itrcweb.org) for a good discussion of the complexities of the various media that PFAS can contaminate.

**Asker:** Anonymous Attendee

**Question:** Had you continued sampling into the pandemic, do you think you would have noticed changes? Did COVID-19 have an impact on water quality, like we saw in air quality?

**Answer:** I think we have seen some adverse effects such as increased use of disinfectants, conversely there were some positive effects due to people teleworking and less car use etc. During the pandemic, I assume we cook more at home — more frequent use of the non-stick cookware?

**Asker:** Ian Hartwell

**Question:** Hi Vicki, Do you have the data, and a method for trying to normalize the conc. data in relation to watershed rainfall events?

**Answer:** Do not, but would be worthwhile to try.

**Asker:** Emily Ranson

**Question:** What is the prospect for future research on these interactions? How about on fish health?

**Answer:** We are planning to use the in vitro methods I mentioned, as well as some modelling approaches to look at associations between the various biological endpoints and the chemical mixtures. Particularly expression of various genes.

**Asker:** V.K. Holtzendorf

**Question:** Do the samples account for amount of rain fall when the chemicals were applied on farmland.

**Answer:** The high concentrations tend to be after storm events which lead to increased runoff.

**Asker:** Sally Hornor

**Question:** Are you measuring pfas metabolites bound to sediments?

**Answer:**

**Asker:** Anonymous Attendee

**Question:** What are the next steps for this research? How could it be used to shape policy?

**Answer:** We want to get the data publicly available in peer-reviewed journals, report on the correlations we are seeing with biological endpoints such as immune function/disease, endocrine disruption, gene expression of key genes - recognizing that they are correlations - not cause and effect. We also want to see if we can reproduce similar associations in the lab which provides more support for the adverse effects and hopefully help to shape policy.

**Asker:** V.K. Holtzendorf

**Question:** Maryland Dept of AG needs to hear this and join with us to advocate with the new regulations.

**Answer:**

**Asker:** Anonymous Attendee

**Question:** How do we help get this website higher up in search results?

**Answer:** We are doing some things on the back end to improve SEO (Search Engine Optimization). But we can really use your help in sharing the site and linking from your websites to <https://SaferDisinfectants.org>

**Asker:** Roger Williams

**Question:** What is the effect of using biosolids on agricultural land? I think I know in general, but I'd like to hear specifics.

**Answer:**