



November 3, 2022 Session – Q&A Transcript
from Pesticides and the Chesapeake Bay Annual Conference

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

Asker: Anonymous Attendee

Question: Where was that study that tested the pesticides and found six highly contaminated with PFAS conducted?

Answer: The peer reviewed study was conducted in Texas on USDA fields

Asker: Anonymous Attendee

Question: If pesticide manufacturers can't use PFAS as surfactants, do they have other options?

Answer: Here is an article that discusses alternative PFAS free surfactants:

<https://pfasproject.com/2020/04/27/pfas-study-suggests-non-fluorinated-surfactants-may-be-equally-toxic/#:~:text=%E2%80%9CNon-fluorinated%20ionic%20surfactants%20used%20as%20%E2%80%98environmentally%20safe%E2%80%9D%E2%80%98alternatives%20to,academics%20working%20with%20scientists%20from%20the%20US%20EPA.>

Asker: Anonymous Attendee

Question: If PFAS is in our wastewater plants, how do we remove them before discharging into our waterways?

Answer: One current method is using activated carbon. Another more expensive option is reverse osmosis

Asker: Anonymous Attendee

Question: How do we know if all the PFAS chemicals are hazardous if they all have not been researched?

Answer: live answered

Asker: Del. Sheila Ruth (she/her)

Question: Is anyone in Maryland doing total organic fluorine testing? I'm not a scientist but I've read that the standard testing only detects a small number of specific types and that TOF can detect the presence more broadly.

Answer: As Greg had answered, this is a great way to inexpensively track where PFAS may be, but follow up testing to ensure that the fluorinated signature is a PFAS.

Asker: JUPHOFF

Question: For Potomac River Smallmouth Bass, what organs or tissues had the levels that were displayed? Were fillets alone tested?

Answer: Can you explain how PFAS is both a sealant and so water soluble?

Asker: JUPHOFF

Question: For Potomac River Smallmouth Bass, what organs or tissues had the levels that were displayed? Were fillets alone tested?

Answer: The data shown in the slides is from testing blood plasma. Blood plasma do have higher levels than in the fish tissue since the PFAS attaches to the proteins in the blood. In fish tissue, PFAS pollutants attach and build up in the fats and proteins of the tissue throughout the fish.

Asker: Devora Kimelman-Block

Question: Can you explain how PFAS is both a sealant and so water soluble?

Answer: The family of PFAS have a chain of fluorinated carbons as a tail which acts as the water proofing or hydrophobic...it repels water. The other end is called the head and is what attaches to proteins or other water mobile molecules.

Asker: Margie Roswell

Question: I imagine programs to give farmers both social and financial support in limiting toxic practices. Are programs available to create a cohort of farmers to help them to move to organic practices?

Answer: N/A

Asker: Josh Hastings# Forever Maryland

Question: If a pipe is broken and water is pouring all over your home, the first step is immediately turning off the water that is flowing through the pipe -- not focusing on mopping up the water. Can you please remind me why we aren't talking about immediately banning all PFAs in the US?

Answer: The issue is that PFAS are not considered by the EPA as toxic substances. However, there is a proposal by EPA to list PFOA and PFOS as toxic substances. This action will trigger the requirement of removal in wastewater, drinking water and in the use of products such as pesticides.

Asker: Margie Roswell

Question: I do data visualization and have lately been thinking about visualizing peer-review paper outcomes. Would you be interested in exploring that for these citations? If so, MPEN knows how to get in touch with me.

Answer: N/A

Asker: Margie Roswell

Question: I do data visualization and have lately been thinking about visualizing peer-review paper outcomes. Would you be interested in exploring that for these citations? If so, MPEN knows how to get in touch with me.

Answer: I'm noticing that the presenter is doing some interesting data visualization of a group of studies. I'd like to re-watch. very intrigued.

Asker: cpbraver@gmail.com

Question: Kendra you are right on. The science is clear that we can not rationally talk about climate change without talking about pesticides. But there is an aversion - in fact an absolute refusal- to talk about pesticides or even look at the science that shows the impact of pesticides on soil health when looking at agricultural practices that store carbon. It is viewed as exhibiting a "bias toward organic". How can we demand that state and federal decision makers move off this untenable position and look at the science?

Answer: Cleo, sometimes animated storytelling can effectively deliver a message. Consider developing a script for an animator with all you want to share.

Asker: cpbraver@gmail.com

Question: Kendra you are right on. The science is clear that we can not rationally talk about climate change without talking about pesticides. But there is an aversion - in fact an absolute refusal- to talk about pesticides or even look at the science that shows the impact of pesticides on soil health when looking at agricultural practices that store carbon. It is viewed as exhibiting a “bias toward organic”. How can we demand that state and federal decision makers move off this untenable position and look at the science?

Answer: That is absolutely what we have to do. Got it.

Asker: Erroll

Question: How do we do large scale farming without pesticides?

Answer: (MPEN) The next presenter, Steve Kraszewski is a model for achieving this and explains how.

Asker: Ian Hartwell

Question: Did Dr. Klein says that the use of neonics does not affect yield, ergo who is paying for it and why?

Answer: live answered.

Asker: cpbraver@gmail.com

Question: Carbon credits are being written to support the practices of big ag - no-till and short term winter cover crops on land sprayed with pesticides. Policy makers are not looking at synthetic elimination. How do we change this?

Answer: N/A

Asker: Matthew Jeffery

Question: I know the big player is agriculture - but we need to be talking to the consumer - is there a role for engaging on these issues around gardens, landscapes etc.?

Answer: (MPEN) Absolutely! Consumers need continuous education and encouragement to 1) Support organic by choosing organic food, products and lifestyle (see MPEN’s www.GoOrganicNow.org for such resources); 2) for gardening (see MPEN’s [Healthy Gardening Guide](#) 3) and organic lawn care (see MPEN’s [Pesticide-free Lawn Care](#)

And [Organic Lawn Care Checklist](#) and visit our newest coalition partner's website for everything you need for toxic-free landscapes: <https://perfectearthproject.org/>

Asker: Ian Hartwell/Emily Ranson

Question: Did Dr. Klein says that the use of neonics does not affect yield, ergo who is paying for it and why? (resubmitted question)

Answer: The data I referred to is about neonic-coated seeds for commodity crops like corn and soy. This is by far the largest use of neonics in U.S. agriculture and a major factor in driving insect declines. Data show that neonic coated seeds do not improve overall yield or income. Farmers are paying the cost for coated seeds. Farmers have a very difficult time accessing uncoated seeds even if they want them, especially in the case of corn as nearly 100% of seeds come pre-coated. Pesticide companies benefit from the sales, but farmers, the environment and the public are not benefitting.

Asker: Anonymous Attendee

Question: Can organic yield enough to feed us?

Answer (Kurt Schwarz): Studies came out a year or two back, showing the European yields were equal or better without use of neonicotinoids. Why they continue to be used on this side of the Atlantic is a mystery.

Answer (David Wallinga NRDC): Yield is not something consumers want. Consumers want healthy food. Yield is what farmers seek, but mostly because Farm Bill payments reward higher yields of corn and soybeans turned into ethanol and animal feed. If Farm Bill payments rewarded quality, reduced toxins and more resilience, then farmers will be incentivized to produce that way. So, it's important to recognize what we actually want from our food and the farmers who produce that food

Answer: N/A

Asker: Anonymous Attendee

Question: Being an early adopter of an industry change takes courage to confront increased risk, I commend your family for doing this. What was the decision-making process that got you here, that might help other farmers follow your lead?

Answer: live answered.

Asker: Anonymous Attendee

Question: Did you notice any changes in the environment around the farm after removing pesticides from your field management program?

Answer: live answered.

Asker: Dana Kolpin

Question: Great talk. When adding poultry manure to augment the remaining nutrient needs you also need to account for organic chemicals (e.g., antibiotics, etc.) being used in livestock management as these are excreted by the livestock and end up in their waste.

Answer: Yes, very true.

Asker: Marion Bundens

Question: Thank you - your efforts are very inspiring! Not being very well-versed in farming practices, I know that Phosphorus is a limiting factor in many farming practices - how does your practice address phosphorus requirements?

Answer: We are very conscious of P levels, too. We pull soil samples from all of our fields on a yearly basis to monitor it closely. Ideally, we want to balance our P inputs (litter) with our outputs (grain) based on our 2-year corn/soybean rotation. For the most part, we've stabilized or somewhat reduced P in most fields down to the point where it is not a limiting fertility factor.

Asker: Emily Ranson

Question: From the chat: Are you able to get non-GMO seed?

Answer: live answered.

Asker: Joyce Kelley

Question: Where do you notice the most savings in your expenditures after switching to organic methods?

Answer: My father-in-law once informed me that the agri-service bills could top \$100,000 each season, whereas equipment parts and other costs might only amount to \$15,000 - \$20,000. Conventional organic tillage has a heavy fuel cost, but our reduced-till and no-till techniques can drop that expense by up to 75%.