



Zoom Chat from Pesticides & the Chesapeake Bay

Conference December 1, 2023

01:17:00 Roger Williams:

Hello from Culpeper, VA!

01:18:12 Tabitha King (GMU):

Tabitha King from George Mason University (Manassas, VA)

01:18:24 Paulette Hammond:

Paulette Hammond from Catonsville, MD

01:18:33 Holly Budd:

Md

01:18:34 Heather Walsh (USGS):

Heather Walsh from the U.S. Geological Survey, Eastern Ecological Science Center, Kearneysville, WV

01:18:39 Gabrielle Sanchez:

Hello, I'm Gabi and I'm from Bowie, MD

01:18:39 Diana Eignor:

Diana Eignor, Biologist working as consultant with MPEN. Sykesville, MD

01:18:42 stuart stainman:

Stuart Stainman, Towson, citizen volunteer, focus on Chesapeake Bay cleanup

01:18:44 People & Pollinators Action Network:

Hi all! My name is Anna-Gray Anderson with non-profit People and Pollinators Action Network. Boulder, CO!

01:18:46 Alexis Luckey:

Alexis Luckey, Durham NC, Toxic Free NC



01:18:46 Mark Southerland:

Mark Southerland, Safe Skies Maryland. Especially interested in healthy soils.

01:18:47 Leah Sattler:

Leah Sattler from George Mason University (Fairfax, VA)

01:18:50 Nancy Catron:

Nancy Catron from Annapolis, MD - good morning to all.

01:18:52 Tabitha King (GMU):

I am a PhD student looking at PFAS in game fishes of the tidal freshwater Potomac River

01:18:55 shiden.azaria:

Shiden Azaria, from DC Pesticide branch

01:18:56 Robert Jenkins:

Robert Jenkins-Nursery Manager-Blue Water Baltimore

01:18:58 Kurt Schwarz:

Kurt Schwarz, Conservation Chair Emeritus, Maryland Ornithological Society. Columbia, MD, and long-time Conference participant.

01:19:03 educe:

Eric Duce, Natural Resource Specialist with Baltimore County Environmental Protection

01:19:06 Carolyn Ricketts:

Carolyn Ricketts, long time SOPC supporter and environmental activist

01:19:12 Steve Ramirez, DEP:

Hi there! Steve Ramirez with Montgomery County, MD Dept. of Environmental Protection

01:19:15 Leslie Lewis:

Leslie Lewis, Baltimore County, Soil Food Web school and Living Systems Soil LLC.



01:19:17 KOFI A.:

KOFI Asante-Duah - Chief Science Advisor, Dept. of Energy & Environment (DOEE), DC

01:19:21 Jordan Kuiper (he/him):

Hi everyone! My name is Jordan Kuiper, Assistant Professor of Environmental and Occupational Health at George Washington University. My research focuses on children's environmental health, primarily focusing on chemical exposures.

01:19:22 Lillian Deery:

Lillian Deery, Natural Resource Planner with Maryland Department of the Environment

01:19:24 Michele Colopy (she/her), LEAD for Pollinators:

Michele Colopy, LEAD for Pollinators

01:19:25 Jessica Baniak:

Jessica Baniak, graduate student at UMBC currently working at IMET in Baltimore. My project is related to horseshoe crabs.

01:19:25 Michael Ichniowski:

Michael Ichniowski, retired pediatrician but still advocate for children's environmental health, from Baltimore

01:19:31 Susan Beal:

Morning, all. Susan Beal here, holistic veterinarian, holistic management educator, consultant, currently in Elmira, Ontario, long time conference attendee

01:19:31 Andrew Monjan:

Andrew Mpnjan with the Howard County WSA

01:19:38 Selina:

Hello, Selina here! Communications & Social Media Manager for Mid-Atlantic Microbials



01:19:50 Judy Billage:

Judy Billage, Attorney at Law, Annapolis, Beyond Pesticides member

01:19:58 Brooks Scoville:

Gm! Brooks Scoville, Chief of Staff with Delegate Jen Terrasa, Howard County, Maryland General Assembly

01:20:03 Sean Lynch:

Sean Lynch, IPM in Health Care Facilities Project of MPEN, Potomac, MD

01:20:11 Tim Wheeler, Bay Journal:

Tim Wheeler, Bay Journal

01:20:12 Darlene Robbins:

Darlene Robbins, RainScapes Planner at Montgomery County Dept. of Environmental Protection

01:20:20 Dhan Parker:

Hi, I'm Dhan Parker and environmental scientist with Philadelphia Parks and Recreation Natural Lands Group. I am engaging in an organic land management pilot program to study the effectiveness of ecological restoration without the use of synthetic herbicide.

01:21:09 Adam Cobb:

Great to see you all from Boise, Idaho

01:21:13 Jon:

Jon Calomiris of Sotiria Science, Arnold, MD: Hello everyone! I am interested in applications of nanopore sequencing (MinION) to the environment, the Chesapeake Bay.

01:22:24 Cheyenne Smith:

Cheyenne Smith, PhD student West Virginia University and USGS Eastern Ecological Science Center at Leetown Research Laboratory

01:22:26 Audrey Tran Lam:

Audrey Tran Lam, University of Northern Iowa, Center for Energy &



Environmental Education.

01:23:40 Kurt Schwarz:

Blackwater National Wildlife Refuge for birding!

01:23:50 People & Pollinators Action Network:

Kayaking!

01:23:50 karenk:

kayaking on the Severn River - mostly within the coves

01:23:55 Carolyn Ricketts:

Paddling and hiking.

01:23:55 Nancy Catron:

kayaking on the South River

01:23:57 swgoldberg:

kayaking

01:23:58 Gabrielle Sanchez:

I love hiking and my dogs love splashing in the streams and rivers we see

01:24:00 Jordan Kuiper (he/him):

Birdwatching and hiking! =)

01:24:05 Andrew Monjan:

Saying on the Bay

01:24:05 Robert Jenkins:

Hiking through the various woodlands, kayaking on the Potomac

01:24:08 Darlene Robbins:

Canoeing on the Patuxent River

01:24:08 Mark Southerland:

Vernal pool in my backyard



01:24:11 richardochs:

I helped Pat Elder take PFAS specimens from 5 military airfields in Maryland wearing bad footwear which exposed me to fire fighting foam residue resulting in pimples all over my body for 2 years. I am now recovered.

01:24:12 Diana Eignor:

Hiking at Piney Run Reservoir part of the CB watershed

01:24:14 Debbie Roy:

Sandy Point State Park

01:24:14 Michele Colopy (she/her), LEAD for Pollinators:

Cuyahoga Valley National Park

01:24:14 Brooks Scoville:

Hiking along the Patuxent River

01:24:15 Tabitha King (GMU):

Paddleboard in various locations in the Potomac River Watershed

01:24:16 Sean Lynch:

Birding along the C&O canal anywhere!

01:24:19 stuart stainman:

My favorite place is Fort Mc Henry and Middle Branch Park on the Patapsco

01:24:23 educe:

Cromwell Valley Park - hiking and cutting and pulling invasive plants

01:24:26 Andrew Monjan:

Sailing on the Bay

01:24:33 Anthony Nathe:

hiking the CB watershed

01:24:35 Roger Williams:



When I was younger ad boating in small boats on te Patuxent River, I found a very small mangrove swamp. That was magic!

01:24:39 swgoldberg:

I like to ride bikes and explore new places in the Bay

01:24:43 bunnyladouceur:

Kayaking on Potomac & Biking on C&O Canal

01:24:43 Veronika Carella:

Veronika Carella, Legislative Director, Maryland Children's Environmental Health Coalition. Favorite place - Finger Lakes, NY - top of the Watershed

01:24:52 shiden.azaria:

Anacosta river, trail walking

01:24:59 Paulette Hammond:

Driving over the Bay Bridge and admiring our beautiful bay and remembering how much I love it and want to protect it

01:25:19 Jon:

Hiking and enjoying the water where I live- Magothy River, Annapolis area.

01:25:24 Steve McDaniel:

Steve McDaniel, Master Beekeeper and professional nature photographer, active in the Central Maryland Beekeepers Association. Our environment is so toxic that I cannot keep my bees alive from year to year, like most beekeepers. Many have given up, but I am too stubborn! Insecticides are killing our insects.

01:25:33 Michael Ichniowski:

Kayaking and exploring nature on Dundee Creek at the mouth of the Gunpowder River. Also seeing the sights in my hometown, Baltimore and rooting for the O's and Ravens

01:26:10 Steve McDaniel:

Blackwater National Wildlife Refuge is one of my favorite places to



photograph wildlife.

01:26:24 Simin Rezai:

Exploring nature and clean water.

01:26:25 Roger Williams:

Agreed, Steve

01:27:08 Kelly M. Love -MDA-:

Kelly Love, Maryland Department of Agriculture, Enforcement Coordinator for Pesticide Regulation Section.

01:34:12 Holly Budd:

I love living on my farm in the woods of Calvert County, by the Chesapeake Bay.

01:34:31 Sean Lynch:

A reminder to please use Q&A for any questions for the presenters today.

01:45:30 Susan Beal:

Interesting to see yet another pesticide that causes shift in the microbiome from positive / beneficial organisms to favoring the pathogens. This is certainly seen in the responses to glyphosate, be that in soil, plants, animals, humans

01:47:03 educe:

Have inert materials been tested along with and separate of the active ingredient?

01:48:00 Margie Roswell:

Susan, do you have references on that for glyphosate? (I have friends who are all-in on supporting the use of glyphosate)

01:48:38 Sean Lynch:

Please make sure to add your questions to the Q&A. Thanks!

01:49:49 Susan Beal:



@MaggieRoswell. Sure do. Please feel free to get with me at alchemy@penn.com and I'd be happy to share w/ you (and any other interested person reading this!) Lots of reasons for your friends to back off their support and use of glyphosate, including many physiological effects on humans.

01:51:05 Susan Beal:

Depend on where their interests and priorities are focused, you might tailor your argument to emphasize those concerns when you discuss the effects of glyphosate

01:52:11 karenk:

<https://www.sciencedirect.com/science/article/abs/pii/S0269749122009241>

01:52:31 karenk:

one study on atrazine and mussels...

01:54:34 shiden.azaria:

why do you assume hypothetically the degraded products, are more toxic?

01:55:33 educe:

Maybe more research needs to be on the inert ingredients?

<https://www.beeeculture.com/its-not-the-glyphosate-it-is-the-inert-ingredients/>

01:58:22 Gabrielle Sanchez:

Thank you!

02:32:02 Susan Beal:

A microscope is one of the most valuable and versatile tools a farmer, rancher, stockman (or home / land owner) will ever own and use

02:33:20 Adam Cobb:

Thanks, Greg

02:33:26 Leslie Lewis:

Note to everyone asking questions: I'm in Baltimore County and have been a Soil Food Web school student/consultant in training for the past 3 years. I've been growing based on the SFW school's teaching and have proof of concept.



I'm also following the regen research in this area and have lots of references. I can answer any questions that aren't answered by Elaine and Adam. leslie.w.lewis at gmail.co or livingsystemssoil at gmail.com.

02:33:53 Adam Cobb:

Awesome Leslie!

02:34:21 mickv:

There is an aesthetic, as aspect of soul making, in all of this. If we do not support and restore a creation that can flower into something commensurate with the capacity for wonder then neither humans nor other life forms will discover their destiny, their intention, their authenticity, their realness. With the loss of the sacred, the loss of the sense of the sacred, comes a loss that visits a deleterious impact upon all life forms.

02:34:49 Roger Williams:

Leslie, assuming you mean gmail.com...

02:35:46 Leslie Lewis:

Yes—gmail.com

02:36:01 Susan Beal:

Re biosolids and sewage sludge is a big issue for other reasons, too, not the least of which is the contamination w/ other things, including drug residues, PFAS and other unsavory, unwanted, and dangerous things

02:36:01 Adam Cobb:

<https://www.youtube.com/@soilfoodwebschool>

02:38:03 Kendra Klein:

Here's a useful report addressing the question of food production and world hunger. A key take home is that hunger is most often a result of social issues and inability to access and afford food rather than lack of food.
<https://foe.org/resources/farm-for-future-organic-solutions/>

02:38:19 Adam Cobb:

Here is one large-scale success story: <https://agribiosystems.com/pages/press>



02:38:33 Susan Beal:

One issue with production and ability to scale and to “feed the world” is that it takes relatively less nutrient dense foods to nourish humans and animals. The current measure of “good” is volume per acre / pound per animal - and that could more accurately be rejigged to talk about actual nourishment per unit. Doing this, and measuring the intrinsic quality of the food changes the playing field. More nutrition per bite is the way to go.

02:38:41 Adam Cobb:

Bingo, Kendra

02:39:04 Adam Cobb:

Right on, Susan

02:39:07 Susan Beal:

@Kendra - that’s for sure.

02:39:56 Margie Roswell:

Nourishment per calorie! Doctor Fuhrman had a start, with an “Aggregate Nutrient Density Score.”

02:40:07 Adam Cobb:

Love it!

02:40:15 Roger Williams:

I have read that only about 5% of US farmland is given directly to food production, i.e. plants to eat. So there is obviously the ability to feed people here.

02:41:53 Susan Beal:

The folks at HRI (Health Research Institute) are also doing some really interesting work that looks at the full spectrum molecular analysis of different foods and ingredients. They are showing a lot of differences in foods, for example, grains, grown under different agronomic practices. Full disclosure, I do some collaborative work w/ them.

02:42:14 Susan Beal:



HRI in Fairfield, Iowa

02:43:17 Adam Cobb:

Have you ever seen this, Roger: <https://www.bloomberg.com/graphics/2018-us-land-use/>

02:43:32 Susan Beal:

Super presentation, once of the best from you guys that I've heard. Thanks, Elaine and Adam

02:44:32 Jaydee Hanson:

The National Organic Standard Board takes comments from the public. If you think the National Organic Program compost rules need improvement please submit comments to the public's voice on organic the National Organic Standards Board Meets in April in Milwaukee, but also takes oral comments and written comments in the 2 weeks before its meeting.

02:44:52 Art Milholland:

Impediments worldwide include WAR and fossil fuel burning

02:44:57 Ann English, DEP: Q2 :

impediments - time/ sources of compost tea

02:45:02 Roger Williams:

I will look, Adam. Thank you.

02:45:26 Susan Beal:

Re Chat #2: mindset and habitual practices, learning to look (look with eyes and observational minds) at the relationships and ecologies w/ different eyes

02:45:33 Debbie Roy:

greed - the pesticide manufactures want to make lots of money!

02:45:40 Michele Colopy (she/her), LEAD for Pollinators:

Impediments to healthy soil/--Lazy humans who simply do not want to change their actions, even though they see their actions are ineffective. They want easy. It is easy to destroy nature, much harder to restore the health and



balance of nature.

02:46:14 Diana Eignor:

the general public do not know how to achieve or work on their property for healthy soils. more information at a level they can understand

02:46:30 Sadie Francis *she/her*:

the fact that most public land managers don't even give a thought to soil health at all...hence the dependency on synthetic herbicides. they think the problem is weeds, without considering the fact that they are creating the conditions (ie degraded soils) under which "weeds" do so well

02:46:43 Jaydee Hanson:

We need to ban the use of plastic sheeting on fields as a substitute for mulch.

02:46:59 Veronika Carella:

Question#2 - Dandelion-phobia, public perception, marketing techniques (for conventional methods) are impediments to achieving healthy soils. Public education on the impacts of conventional vs sustainable especially on air, water and soil is key to changing public perception.

02:47:57 Michael Ichniowski:

I would imagine the biggest impediment is the mindset that more chemicals makes for better agriculture. Having policies and providing education to support healthy soil practices would be helpful in supporting a transition. Education would be a great start while waiting for legislative policy to catch up.

02:49:28 Bonnie:

We will send out contact information to everyone on our presenters.

02:52:15 Margie Roswell:

The biggest impediments to achieving healthy soils are that people are overwhelmed by life, by financial stress, by competing priorities, and by ill-health that limits their focus. Even the legislators are only applying a small portion of their brain capacity to the issues.

02:52:19 Adam Cobb:



On it

02:53:10 swgoldberg:

Often I refer people of certain ages to remember what their parents and grandparents did to be sustainable. They often recognise the success of that generation to produce healthy crops using what was available to them. The mind set of many is to do what is marketed as being easy. Today's many have been greatly influenced by the marketing of huge ag companies. Many people do not want to compost because they think it stinks. I always tell them if their compost stinks then they have a garbage pile.

02:53:55 Margie Roswell:

I have always wanted to do a poster that shows the difference between soil and dirt.... Similar to the slides, but with Ernst Haeckel-style illustrations of the life in the soil. I'd love to find a partner for this. That is, someone with a dataset of ALL of the life in the soil, vs in dirt.

03:05:56 Susan Beal:

Re redactions: Same is the case when you look at the pesticide application reporting rates by crop. Lots of wild redactions in those records

03:20:39 Susan Beal:

Complications re definitions is also increased by the move to differentiate between "genetic engineering" and "gene edited" in the regulatory and registration spheres. There is a move to not treat these the same in regulatory realms.

03:23:12 Susan Beal:

Re drift - this can be a really huge issue bc it's possible that these microbes can be transmitted by soil movement. And since topsoil is still the largest export, in tons and dollar value, from the US (via erosion through water, winds, etc) and there is also soil movement in other ways. there is huge potential that these GE organisms are going to move beyond that places they are originally applied.

03:23:27 Jaydee Hanson:

USDA last week announced that it was exempting from regulation gene-edited microbes and that currently about 1/3 of the 60+new CRISPR cas9



organisms reported to it are edited microbes.

03:23:50 Susan Beal:

@JaydeeHanson - yes, this is a huge issue, that's for sure.

03:25:54 Susan Beal:

Some of the claim is that they can't regulate them bc they can't test for them. That is false. John Fagan and his group at HRI have developed the ability to identify these gene edited organisms. In my opinion, being able to do this would really change the playing field here - and also make they regulatory argument rather moot.

03:26:23 Susan Beal:

Thanks, all, for a super meeting. See you in a few weeks.

03:26:56 Margaret Cahalan:

thanks for a great conference --

03:27:11 Ann English, DEP:

great info!

03:27:12 Jessica Baniak:

Thank you for the informative session!

03:27:36 Jaydee Hanson:

Thank you and all the presenters

03:28:01 Brooks Scoville:

Thank you!