W4170 Multistate Workgroup – The State of PFAS Science in Relation to Agriculture and Natural Resource Challenges

May 24-25, 2023

The USDA Multi-State research group, Beneficial Use of Residuals to Improve Soil Health and Protect Public, and Ecosystem Health (W4170), has a 50-year history of research focused on land application of waste materials, and fate/transport of constituents within those waste materials. A current focus within the W4170 workgroup is the fate/transport of PFASs within the environment. W4170 is hosting and conducting this 2-day summit to discuss research, education, and practical applications of PFAS science in relation to agriculture and natural resources challenges. Speakers include a diverse set of individuals across a range of sectors and disciplines who not only target the environmental fate of PFASs, but who are at the pinnacle within their respective fields. We encourage scientists and policy makers to this summit to learn, discuss, and contribute to the future with respect to this topic. This summit is sponsored by the USDA-NRCS.

AGENDA

Welcome and Introductions (2 minutes)

Day 1: (~6 hours total; Start at 11am EST)

Science and Technology

- Testing and monitoring
 - Kang Xia Testing for PFAS in Virginia rural well waters (11-11:30am)
 - Heather Preisendanz PFAS testing in private wells across PA (11:30-12pm)
 - Ian Pepper PFAS testing and monitoring in biosolids-amended soils across the US (12-12:30pm)
- Fate, transport, and uptake
 - Heather Preisendanz PFAS fate, transport, and plant uptake from wastewater reuse (12:30-1pm)
- BREAK (1-1:30pm)
- Avoidance and mitigation
 - Christopher Bellona (CO School of Mines) Practical applications of different treatment technologies: focus on adsorbents and membranes to prevent release (1:30-2pm)
 - Jack Huang PFAS treatment technologies for rural areas (2-2:30pm)
- Disposal and destruction
 - Kevin Harvey (GHD) PFAS disposal and destruction technologies (2:30-3pm)
- Exposure, modeling and risk assessment
 - Guy Litt (Battelle) PFAS modeling and risk assessment (3-3:30pm)
- BREAK (3:30-3:45pm)

PANEL DISCUSSION FOR ALL PRESENTERS TO ANSWER ADDITIONAL Q/A (3:45-4:45pm)

Need for a coordinated federal scientific framework Lightning round of NRCS funded projects, 5 minutes/presenter – Thomas Borch, Hui Li, Nick Basta, Heather Preisendanz, Kang Xia, Jack Huang (11-11:30am)

Policy Considerations

- Federal agency actions and plans to apply science for the future
 - Dr. Melanie Benesh (Environmental Working Group) Federal agency actions and plans to apply science for the future (11:30-12pm)

Social and Economic Implications

- Community-level considerations for underserved populations
 - Kimberly Garrett and Kira Mok (Northeastern University) Environmental Justice and Inequality in PFAS Testing and Exposure (12-12:30pm)
- PFAS Contamination Economic and Policy Questions
 - Alissa Cordner (Whitman College) and Grace Poudrier (Northeastern University) Social Costs of PFAS Contamination (12:30-1pm)
- BREAK (1-1:30pm)

Practical Applications

- Biosolids management options benefits vs risk at a societal level
 - Linda Lee biosolids management options with respect to PFAS (1:30-2pm)
- Methods to treat and practices to manage soil PFAS
 - Thomas Borch/Yael Zvulunov biochar and other options to manage PFAS in various matrices (2-2:30pm)
 - Rick Kersbergen (Univ. Maine Coop. Ext) and Caleb Goossen (Maine Organic Farmers and Gardeners Association) – Practical applications for handling PFAS on farms: from water to soil to plant to animal/milk (2:30-3pm)
 - Andy Ball (School of Science, RMIT University, Bundoora, VIC, Australia); Challenges and current status of the biological treatment of PFAS-Contaminated Soils (3-3:30pm)
- BREAK (3:30-3:45pm)

PANEL DISCUSSION FOR ALL PRESENTERS TO ANSWER ADDITIONAL Q/A (3:45-4:45pm)

Click this Adobe Connect link to connect to the summit webinar each day.