Assistance to the U.S. Department of Agriculture in Building a Framework for Addressing PFAS on Agricultural Land

Committee

Jim Ippolito

Chair

Dr. Jim Ippolito is currently a professor of soil health and fertility at The Ohio State University. He was previously a professor at Colorado State University and a research soil scientist with the U.S. Department of Agriculture's Agricultural Research Service. Dr. Ippolito's research expertise lies in the area of soil health and environmental quality in the agricultural sector. He has focused major efforts on biosolids land application, biochar land application, reuse of water treatment byproducts, macronutrient, micronutrient, heavy metals, and the fate and transport of per- and polyfluoroalkyl substances within agroecosystems. Dr. Ippolito is the recipient of the Soil Science Society of America's Soil Science Applied Research Award and the Jackson Soil Chemistry and Mineralogy Award, the U.S. EPA National Clean Water Act Recognition Award for outstanding biosolids research, and several other state and federal awards focused on biosolids land application research. He is also a Fellow of both the Soil Science Society of America and the American Society of Agronomy. Dr. Ippolito received his B.S. degree in plant sciences with a focus on agronomy from the University of Delaware (1989), his M.S. degree in soil chemistry/fertility from Colorado State University (1992), and his Ph.D. in environmental soil quality/chemistry from Colorado State University (2001).

Thomas W. Christensen

Member

Mr. Tom Christensen serves as the Chief Operating Officer for Ecosystem Services Exchange (ESE), an LLC founded in 2010 that provides technical services and project development and leadership in support of water management, with a strong focus on conservation drainage practices/systems. He joined ESE in February 2020 after retiring from the U.S. Department of Agriculture (USDA) with 40 years of professional experience at the field, state, regional, and national levels in support of public-private partnership efforts to assist farmers, ranchers, and forest stewards with their voluntary conservation needs. He also serves on the board of directors of SWRT Solutions, Inc., a small business focused on the use of mechanical chisels for the installation of water retention membranes in sandy soils to improve soil moisture. Mr. Christensen worked for three different agencies in USDA, including 37 years with the Natural Resources Conservation Service (NRCS), and held 16 distinct positions in nine separate locations in four states and Washington, D.C. He was the NRCS State Conservationist for Illinois and held eight different national-level Senior Executive Service positions, including serving with NRCS as Associate Chief, Deputy Chief for Programs, Director of Financial Assistance Programs, Director of Conservation Operations, Director of Animal Husbandry and Clean Water Programs, Chief Information Officer, and Regional Conservationist for the 12 Central Region states, plus with the USDA Farm Production and Conservation Mission Area as Deputy Chief Operating Officer. He is a recipient of a Presidential Meritorious Executive Award for Senior Executives for Public Service. Mr. Christensen has a B.S. in Forest Management from Rutgers University and an M.S. in Renewable Natural Resources Conservation from the University of Connecticut, and he attended Duke University’s Public Policy Institute.

Benjamin M. Gramig

Member

Dr. Benjamin Gramig is a research agricultural economist at the United States Department of Agriculture’s Economic Research Service (2021-present). Previously he was an associate professor at the University of Illinois at Urbana-Champaign (2017-2021) and Purdue University (2008-2017). Dr. Gramig’s research is wide-ranging with a focus on topics at the interface between agricultural production and environmental quality. His active research projects are investigating the impact of conservation practices and federal conservation programs on ambient water quality, agricultural adaptation to and mitigation of climate change, and working on interdisciplinary teams to leverage economics, agronomy, engineering and hydrology expertise to address agri-environmental challenges faced by society. Dr. Gramig is member of the Agricultural and Applied Economics Association. His past research has been supported by the National Science Foundation, U.S. Department of Energy, and U.S. Department of Agriculture, among others. Dr. Gramig received his doctorate from Michigan State University and his M.S. and B.S. degrees from the University of Kentucky.

Jennifer L. Guelfo

Member

Dr. Jennifer Guelfo is an associate professor in Civil, Environmental, & Construction Engineering at Texas Tech University (TTU). She joined TTU in 2018 following a postdoctoral appointment in the Brown University School of Engineering. In addition to academia, she also has a combination of consulting and industry experience, and she uses this background to engage in activities that can inform policy and bridge gaps between research and practice. For the past 15 years, her research has focused on occurrence, fate, transport, and remediation of per- and polyfluoroalkyl substances (PFAS). This experience includes multi-institution, state- and federal-level projects focused on PFAS in biosolids, biosolids-amended soils, and PFAS in agriculture. Dr. Guelfo has received the TTU Ed and Linda Whitacre Faculty Fellowship and the Chancellor's Council Distinguished Research Award, which is the highest honor given by the university to its faculty members for their research efforts. Dr. Guelfo holds a B.A. in Geology from the College of Charleston, an M.S. in Environmental Science & Engineering from the Colorado School of Mines (CSM), and a Ph.D. in Hydrologic Science & Engineering, also from CSM.

Linda S. Lee

Member

Dr. Linda S. Lee is a Distinguished Professor at Purdue University with a joint appointment in the Colleges of Agriculture and Engineering. She is also the Program Head of the Ecological Sciences & Engineering Interdisciplinary Graduate Program and COA Assistant Dean of Graduate Education and Research. She has established a strong research and teaching program on chemical fate in the environment, analytical tools, and waste and contaminant management strategies with per- and polyfluoroalkyl substances (PFAS) challenges driving her research for the last two decades. She is well-published in top tier environmental journals. Her current research is funded by a diverse portfolio including U.S. EPA, USDA, DOD, NSF, and USGS. She has published over 160 publications with most being in top tier environmental journals and served as primary mentor of over 40 graduate students to date. Dr. Lee is a highly regarded environmental professional for her three decades of notable work in teaching, mentoring, and service as exemplified by being awarded Purdue Faculty Scholar (2001), Fellow by the American Society of Agronomy (ASA) (2003) and the Soil Science Society of America (SSSA) (2004), Purdue Seed for Success (2017, 2018, 2019, 2020, 2023), ASA Environmental Quality Research Award (2021), Purdue Distinguished Professor (2022), SSSA Diversity Trailblazer Presidential Award (2023), and ASA Mentoring Award (2024). She is member of ASA, SSSA, the American Chemical Society, the Society of Environmental Toxicology and Chemistry, and the American Association for the Advancement of Science. She joined Purdue in 1993 with degrees in Chemistry, Environmental Engineering, and Soil Chemistry and Contaminant Hydrology from the University of Florida.

Hui Li

Member

Dr. Hui Li is a Professor of Environmental Soil Chemistry at Michigan State University. His research program focuses on analysis, sorption, transformation, bioavailability, plant uptake, exposure, and mitigation of pharmaceuticals and personal care products, per- and polyfluoroalkyl substances, and legacy organic contaminants in the environment. He also focuses on molecular-level understanding of physicochemical processes at the interface of water and soil, plant uptake of organic contaminants from soil and water, and the development of environmental remediation technology and mitigation management strategies. Dr. Li has received the Jackson Soil Chemistry and Mineralogy Award from Soil Science Society of America (SSSA) and the Environmental Quality Research Award from American Society of Agronomy (ASA). He was elected as a Fellow of both SSSA and ASA. He also serves on the EPA Science Advisory Board and on its Agricultural Science Committee. Dr. Li earned his Ph.D. in Soil Chemistry from Purdue University.

Jacqueline MacDonald Gibson

Member

Dr. Jackie MacDonald Gibson is Department Head and Professor in the Department of Civil, Construction, and Environmental Engineering at North Carolina State University. Dr. Gibson’s research develops quantitative methods to characterize environmental risks to human health and to identify optimal technical and policy solutions. Her recent work includes projects to characterize risks from exposure to per- and polyfluoroalkyl substances in private well water in rural areas. She is President-Elect of the Society for Risk Analysis. She also was recently appointed as Associate Editor of the journal Environmental Science & Technology. She earned a dual Ph.D. from the Department of Engineering and Public Policy and the Department of Civil and Environmental Engineering at Carnegie Mellon University, an M.S. from the Department of Civil and Environmental Engineering at the University of Illinois at Urbana–Champaign, and a B.A. in mathematics from Bryn Mawr College.

Ellen B. Mallory

Member

Dr. Ellen Mallory is an extension specialist and professor of sustainable agriculture at the University of Maine. She conducts applied research and educational programming on crop production, soil health and fertility, climate adaptation, and most recently, the transport and mitigation of per- and polyfluoroalkyl substances (PFAS) in agricultural systems. Her prior research projects documented soil health impacts on soil nitrogen dynamics and potato yield stability, developed biologically based fertility strategies for organic grain and pulse production, and predicted the response of potato-grain production systems to climate change. Her current PFAS research projects investigate the influence of soil and plant factors on PFAS uptake by forage crops and explore management practices to minimize that uptake. She coordinates the Maine PFAS Agricultural Research Network. From 2008 to 2024, she served as the Maine State Coordinator for the U.S. Department of Agriculture's Sustainable Agriculture Research and Education (SARE) program. Dr. Mallory earned her B.S. in biology from Swarthmore College, two M.S.s in agronomy and land resources from the University of Wisconsin, and her Ph.D. in ecology and environmental sciences with a concentration in sustainable agriculture from the University of Maine.

Timothy Rosen

Member

Mr. Timothy Rosen is the Director of Agriculture & Restoration for ShoreRivers, regularly partnering with academic, state, and federal agencies to advance research on agricultural best management practices; managing restoration projects; completing watershed assessments; and working with farmers and landowners to reduce land-based pollution. He joined the staff of ShoreRivers in 2012. He was a 2017 Dairy Sustainability Award Winner from the Innovation Center for U.S. Dairy, served on the Chesapeake Bay Program's Agricultural Workgroup, and is a member of Delmarva Land and Litter Collaborative that brings together agricultural industry, farmers, regulatory agencies, academia, and environmental groups in a collaborative and mission-driven manner. He has published research on the efficacy of conservation drainage practices on reducing nutrient pollution from agricultural drainage, has worked on research to optimize cover crop management for water quality purposes, and is a part of the first research efforts to understand how biostimulants impact water quality and crop production. Mr. Rosen majored in biology and minored in environmental studies at Mount St. Mary's University and completed a master's degree in watershed hydrology at Louisiana State University.

Kara N. Laney

Staff Officer