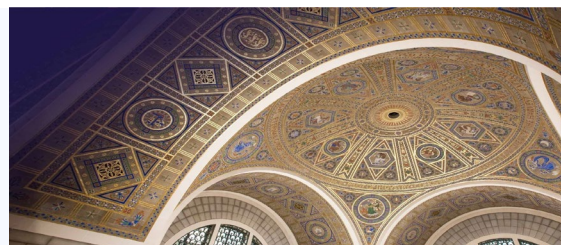


Exploring Linkages Between Soil Health and Human Health

Meeting 6 (Virtual) – June 29, 2023

Public Agenda



THURSDAY, JUNE 29, 2023 (ET)

Purpose The session will focus on soil contaminants.

Open session

11:00

Welcome

Diana H. Wall, Committee Chair & Session Moderator, Colorado State University

11:10

Overview of the National Academies study process

Kara Laney, Study Director, National Academies of Sciences, Engineering, and Medicine

11:20

Invited presentations

Matthias Rillig, Director, Berlin-Brandenburg Institute of Advanced Biodiversity Research, and Professor of Plant Ecology, Freie Universität Berlin

The effects of microplastics on agricultural soils

11:45

Erlend Sørmo, Senior Advisor, Norwegian Geotechnical Institute

Forever no more? The role of pyrolysis in combatting PFAS

12:10

Marcel van der Heijden, Professor, Department of Plant and Microbial Biology, University of Zürich:

Impact of pesticides on soil microbial communities and soil functioning

12:35

Speaker discussion with the committee

1:00

Open session concludes

SPEAKER BIOS

MATTHIAS RILLIG, FREIE UNIVERSITÄT BERLIN

Matthias Rillig is Professor of Ecology at the Institute of Biology at the Freie Universität Berlin and head of the research group Ecology of Plants. Dr. Rillig is also director of the Berlin-Brandenburg Institute of Advanced Biodiversity Research. In his scientific work, he investigates the symbiosis of mycorrhizal fungi with plants as well as the effects of climate crisis and globalisation on soil processes and soil biodiversity. Rillig heads several joint projects, including *μPlastic*, which studies the effects of microplastics on agricultural soils. After studying biology at Universität Kaiserslautern and Edinburgh, he earned his Ph.D. in ecology from University of California Davis/ San

Diego State University. After a postdoc at the Carnegie Institution of Washington, Stanford, he was professor of microbial ecology at University of Montana in Missoula for 9 years.

ERLEND SØRMO, NORWEGIAN GEOTECHNICAL INSTITUTE

Erlend Sørmo is an environmental chemist who has experience with environmental monitoring, contaminated sites and landfill risk assessment, and soil and sediment remediation with a particular focus on sorbent amendment. Mr. Sørmo is a senior adviser at the Norwegian Geotechnical Institute (NGI), where he has been working for the past 9 years. He is currently in the final stages of a PhD-project, associated with the Norwegian University of Life Science (NMBU), concerning the fate of contaminants in pyrolysis of waste and the subsequent use of waste biochars as sorbents for PFAS.

MARCEL VAN DER HEIJDEN, UNIVERSITY OF ZÜRICH

Dr. van der Heijden is Professor for Agro-ecology and Plant-Microbiome Interactions at the University of Zürich (Switzerland) and heads the Plant-Soil Interactions Group (25-30 members) at the Swiss Federal Research Institute Agroscope (Zürich, Switzerland). He is extraordinary professor in Mycorrhizal Ecology at Utrecht University (the Netherlands) and is president of the International Mycorrhiza Society. He obtained his Ph.D. in 1999 at the Botanical Institute of Basel University, Switzerland, studying the impact of plant root symbiont (arbuscular mycorrhizal fungi) diversity on plant diversity, nutrient cycling, and ecosystem functioning. His research group performs a mix of basic and applied research, specifically investigating how soil microbial diversity and root microbiome complexity influence plant productivity, soil health, and ecosystem functioning. He is also interested to enhance the sustainability of agro-ecosystems using soil ecological engineering, field inoculation with arbuscular mycorrhizal fungi, and plant microbiome management. Recent work also focuses on links between pesticides and soil health. He has published more than 200 papers, including various highly cited papers that have moved the research field.