Angelia L. Seyfferth

Professor, Soil Biogeochemistry and Plant-Soil Interactions at University of Delaware

Newark, DE, US

Prof. Seyfferth focuses on soil biogeochemical processes that dictate contaminant and nutrient cycling and uptake by plants.

Biography

Dr. Angelia Seyfferth is a Professor in the Department of Plant and Soil Sciences, one of the founding Directors of the Center for Food Systems and Sustainability (CENFOODS), and the Associate Dean for Research in the College of Agriculture and Natural Resources at the University of Delaware. Seyfferth earned her B.S. degree in Environmental Science and Chemistry at Towson University, her Ph.D. in Soil and Water Sciences at the University of California-Riverside, and was a postdoctoral researcher in the Department of Environmental Earth System Sciences at Stanford University prior to starting her faculty position. Seyfferth?s research focuses mainly on using tools and concepts rooted in soil biogeochemistry to develop sustainable ways to lower human exposure to harmful contaminants from food. She uses both laboratory and field experiments as well as conventional and advanced spectroscopic techniques to illuminate the dynamic chemistry of the rhizosphere and to understand localization of contaminants and nutrients in soils and plants. Her research also includes understanding mineral control on below-ground carbon cycling in coastal environments that are prone to sea level rise and storm surges. She has won several awards, including the 2022 Jackson Award in Soil Chemistry and Mineralogy given by the Soil Science Society of America and the 2022 Charles S. Falkenberg Union Award co-sponsored by the American Geophysical Union and the Earth Science Information Partners.

Industry Expertise

Research, Education/Learning

Areas of Expertise

Chemical Sciences, Soil Science, Soil Biogeochemical Processes, Plant Science, Ecosystems

Affiliations

American Chemical Society : Member, American Geophysical Union : Member, Association for Women in Science : Member, Geochemical Society of America : Member, Soil Science Society of America : Member, Women in Soil Science

Event Appearances

Linking soil science to food security: Combating As uptake by rice through soil Si management

Eidgenössische Technische Hochschule (ETH)

Probing the plant-soil interface to understand As uptake in rice (Oryza sativa L.) and accumulation in grain
International Conference on the Biogeochemistry of Trace Elements

How management practices influence Fe plaque mineral composition and As cycling in rice paddies
National Institute for Agro-Environmental Sciences

Education

University of California-Riverside
PhD Soil and Water Sciences

Towson University
BS Environmental Science-Chemistry

Accomplishments

Charles S. Falkenberg Award, American Geophysical Union and Earth Science Information Partners
2022

Jackson Soil Chemistry and Mineralogy Award, Soil Science Society of America
2022

Faculty Award of Excellence, University of Delaware Sustainability Council Green Hen Awards
2021

Faculty Early Career Development (CAREER) Award, National Science Foundation
2014

Minority Postdoctoral Fellowship Award in Biology, National Science Foundation
2009

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