

THE POWER OF SOIL! THE BREAKDOWN OF POLLUTANTS BY SOIL MICROORGANISMS



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Abstract

This presentation will focus on how microorganisms break down and remove herbicide pollutants in soils. It will explore the importance of the biological processes and mechanisms in soil for the transformation of synthetic chemicals. Discussion will draw from work in agricultural soils and research and explore how we may or may not apply that to urban soil settings. I will also discuss how bacteria have rapidly evolved to degrade novel chemicals added to soils systems by human activity.

Biography

Dr. Mike Sadowsky studied in the Department of Bacteriology at the University of Wisconsin-Madison, and received his Ph.D. in Microbiology from the University of Hawaii in 1983. Between 1983 and 1985, Dr. Sadowsky did postdoctoral research at the McGill University in the plant-microbe interactions group of the Plant Molecular Biology laboratory. He worked shortly for Allied Corporation as a molecular biologist and then worked for the USDA in Beltsville, Maryland, for several years in the Nitrogen Fixation and Soybean Genetics Laboratory. He joined the faculty at the University of Minnesota in 1989, where he is currently a Distinguished McKnight Professor in two departments and a member of 7 graduate faculties.