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Soil and Water Microbiomes: Advances and Present Challenges in Soil Bioremediation

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Message from the Guest Editors

Agronomy aims to increase productivity by using pesticides, but this leads to the pollution of agricultural soils, river systems, and groundwater. This pollution disrupts the structure and function of microorganisms. Pesticides can impact soil and water microbiomes, potentially causing changes in microbial processes associated with pesticide tolerance and degradation. These characteristics can be utilized in bioremediation by individual strains or consortia of microorganisms. This Special Issue aims to explore innovative approaches to improving the safety and efficiency of bioremediation processes for pesticides in agricultural soils. We are interested in articles examining the response of microorganisms to pesticides and their potential application in bioremediation processes. This includes papers studying bacterial consortia, selected strains, and genetically modified strains. We will give priority to articles that investigate genetic and metabolic mechanisms, especially those utilizing omics approaches to do so.



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Message from the Editor-in-Chief

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