



## The Impact of Soil Microbiome Capability, Nutrient Bioavailability, and Plant Resilience in Sustainable Agriculture

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### Message from the Guest Editors

Global climate change, shifting land-use, and the intensification of agriculture are increasing crop stress caused by drought, salinity, herbivores, and pathogens. Emerging social and regulatory factors have motivated interest in the development of sustainable agriculture, which can be obtained by the implementation of green technologies with the capacity to protect crops from exposure to potential damage caused by various abiotic and biotic stresses. For instance, this can be achieved by breeding plant genotypes with specific traits that can survive disease or terrible environmental conditions as well as applying soil amendments such as compost and seed meal to limit the proliferation of soil-borne disease and changing nutrient cycling in agro-ecosystems. Additionally, plant-associated microbial niches, especially rhizosphere microbiome possess members, that are able to stimulate plant hormone and immune responses, increase micronutrient availability and shield plants from diseases by producing secondary metabolites with antibiotic or antifungal properties.





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