



The Effect of Soil Microbes on Plant Growth and Crop Protection

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Message from the Guest Editors

Dear Colleagues,

Soil microbes play a pivotal role in shaping the dynamics of plant growth and crop protection, exerting important influences on agricultural ecosystems. Historically, the symbiotic relationships between plants and beneficial soil microbes, such as mycorrhizal fungi and rhizobacteria, have been applied to crops. These microbial partners form intricate networks with plant roots, facilitating nutrient uptake and enhancing plant growth. Their involvement in nutrient cycling and the release of growth-promoting substances underscores their indispensable role in augmenting crop productivity. Moreover, soil microbes have significant potential to sustain crop protection against pathogens and pests.

This Special Issue explores soil microbial communities' effects on plant stress tolerance. Soil microbes have been shown to mitigate abiotic stresses, such as drought and salinity, through osmoprotection and hormonal regulation. As climate change continues to pose challenges to agriculture, understanding and harnessing the potential of soil microbes in stress alleviation becomes increasingly crucial for ensuring food security.





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Message from the Editor-in-Chief

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