

Special Issue

Functional Regulation of Soil Microorganisms in Agricultural Ecosystems: Impact on Agronomical Practices

Message from the Guest Editors

The role of the soil microbiome in agricultural ecosystems has received tremendous attention in recent years as moving towards more sustainable agriculture under a changing climate, which requires a drastic reduction in chemical and energy inputs. In this scenario, the microbial resources of the soil and their interactions with plants are fundamental drivers of innovation, inclusive of studies on microbial nitrogen fixation, plant growth-promoting microorganisms, and protection from plant pathogens. The use of novel organic amendments, sustainable agronomical practices, and reclaimed wastewater for irrigation, requires an interdisciplinary approach to elucidate the potential benefits of a healthy soil microbiome in terms of preventing any drawback in soil health and crop quality.

This Special Issue focuses on innovative agronomical practices that directly rely on novel microbial resources (e.g., biofertilizers) or evaluation of their impact on soil microbial diversity and interactions with plants and include interdisciplinary studies that consider agronomical inputs, microbial resources, and physiological plant response and their impact on soil health and crop quality.

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