Special Issue

Microbial-Based Plant Biostimulants

Message from the Guest Editor

In recent years, major investments have been made to develop innovative biotechnologies that will sustain food production while reducing the environmental footprint of agriculture. Among these innovations, plant biostimulants have gained popularity. Plant biostimulants are defined as microorganism-based inoculants, or substances derived from organisms, or a combination of both, that can be applied to plants to enhance nutrient uptake, protect against biotic and abiotic stress, and improve growth parameters (e.g., germination, flowering, fructification, maturity, and crop quality). Although microbial-based plant biostimulants have been widely used in agriculture, horticulture and forestry, many scientific questions remain unanswered. This Special Issue seeks research contributions that will advance our knowledge on the effectiveness of microbial-based plant biostimulants and their impact on indigenous microbial communities of soils, as well as on plant microbiota, focusing on:

- Plant growth-promoting rhizobacteria (PGPR)
- Plant endophytes
- Mycorrhizal fungi
- Microbial biotechnology
- Bioinoculants and biostimulants
- Biocontrol

Guest Editor

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About the Journal

Message from the Editor-in-Chief

"Microorganism" merges the idea of the very small with the idea of the evolving reproducing organism is a unifying principle for the discipline of microbiology. Our journal recognizes the broadly diverse yet connected nature of microorganisms and provides an advanced publishing forum for original articles from scientists involved in high-quality basic and applied research on any prokaryotic or eukaryotic microorganism, and for research on the ecology, genomics and evolution of microbial communities as well as that exploring cultured microorganisms in the laboratory.

Editor-in-Chief

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manuscripts are peer-reviewed and a first decision is provided to authors approximately 15.2 days after submission; acceptance to publication is undertaken in 2.9 days (median values for papers published in this journal in the first half of 2025).

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