

Special Issue

Microbiome-Driven Agriculture: Transforming Sustainability and Resilience Through Functional Microbial Insights and Metagenomics

Message from the Guest Editor

The research featured in this issue demonstrates the potential of metagenomic approaches to uncover the intricate roles of microbial communities. Studies have shown that tailored microbial inoculants can improve nutrient availability and pest control. This research underscores the importance of customizing microbial solutions to specific crop, soil, and climatic conditions, optimizing their effectiveness and contributing to improved crop performance and resilience.

The primary objective of this Special Issue is to bridge the gap between microbiome science and practical agricultural applications. The issue aims to inspire innovative microbial strategies for sustainable agriculture that address modern farming challenges by presenting a collection of research articles, reviews, and case studies.

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 20 days after submission; acceptance to publication is undertaken in 2.9 days (median values for papers published in this journal in the second half of 2025).