

Special Issue

Interactions Between Plants and Fungal Networks: From Rhizosphere Processes to Ecosystem Functioning

Message from the Guest Editor

Fungi play a pivotal role in shaping plant health, productivity, and ecosystem stability through complex symbiotic and associative interactions. This Special Issue, “Interactions Between Plants and Fungal Networks: From Rhizosphere Processes to Ecosystem Functioning,” aims to highlight recent advances in understanding the multifaceted relationships between plants and their fungal partners. We welcome studies exploring the ecological, physiological, and molecular aspects of interactions involving mycorrhizal fungi, fungal endophytes, and dark-septate endophytes, as well as their interplay with other soil microorganisms such as bacteria and archaea. Contributions addressing the roles of fungal networks in nutrient cycling, stress tolerance, and soil structure formation are encouraged, along with research integrating multi-omics, microscopy, and ecological modeling approaches. By bringing together studies from diverse ecosystems and experimental frameworks, this Special Issue seeks to deepen our understanding of how fungal-plant-microbe interactions shape plant performance and ecosystem functioning under changing environmental conditions.

Guest Editor

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Message from the Editor-in-Chief

Plants is an open access journal which provides an advanced forum for research findings in areas related to plant function, its physiology, biology, taxonomy, stresses, and its interactions with other organisms. It publishes original research articles, reviews, reports, conference proceedings (peer reviewed full articles) and communications. In original research papers, it is important that full experimental details are provided. We also encourage timely reviews and commentaries on topics of interest to the plant research community.

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