

Special Issue

Crop–Weed Competition: Ecological Interactions and Management Strategies

Message from the Guest Editors

Crop–weed competition is a central challenge in agricultural systems, directly affecting crop yield, resource use efficiency, and overall farm sustainability. This Special Issue aims to gather cutting-edge research and reviews that explore the ecological, physiological, and agronomic aspects of crop–weed interactions. We welcome contributions that enhance our understanding of the mechanisms underlying competition for light, water, nutrients, and space, as well as the influence of cropping systems, climate change, and weed management practices on competitive outcomes. This Special Issue seeks to bridge fundamental ecological insights with practical strategies, offering innovative approaches to suppress weeds, improve crop resilience, and reduce dependency on chemical herbicides. Studies involving modeling, field experimentation, cover cropping, allelopathy, crop breeding for competitive traits, and integrated weed management are particularly encouraged. By bringing together diverse perspectives, this Special Issue will provide a comprehensive overview of current knowledge and future directions in the field of crop–weed competition.

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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, and 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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