Special Issue

Effects of Abiotic Stress on Crop-Fungal Pathogen Interactions

Message from the Guest Editors

Fungal pathogens destroy approximately one third of all food crops annually. Climate change threatens to intensify these losses and jeopardize global food security because plant pathogenic fungi and oomycetes comprise the largest faction of rapidly spreading agricultural pests. Abiotic factors drive plant–pathogen interactions, and the individual and combined abiotic stress factors associated with climate change, including rising atmospheric CO2, temperature, and extreme precipitation events, can all influence crop susceptibility and disease severity. The impact of abiotic stress can have positive, neutral or negative effects on disease development, and each disease may respond differently to the stress depending on the pathosystem. To fully understand the dynamic plant–fungal pathogen–environment interactions that occur in nature and develop climate-resilient and disease-resistant crops, a combined interdisciplinary research effort is needed. This Special Issue of Plants will highlight emerging agricultural threats, knowledge gaps, and potential control strategies.

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Deadline for manuscript submissions

closed (31 October 2021)

Plants

an Open Access Journal by MDPI

Impact Factor 4.1
CiteScore 7.6
Indexed in PubMed

mdpi.com/si/51324

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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.

Editor-in-Chief

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