Special Issue

Broad-Spectrum Disease Resistance in Plants

Message from the Guest Editors

This Special Issue focuses on the recent advances in the study of broad-spectrum disease resistance (BSR) in plants. Plants have evolved a type of innate immunity to protect themselves against pathogens, such as viruses, bacteria, fungi, oomycetes and nematodes, as well as herbivores. In agriculture, it is important to confer crops with resistance to multiple pathogens (i.e., BSR), through enhancing plant immunity. Many components are involved in plant immunity, including cell-surface pattern recognition receptors (PRRs), intracellular nucleotide-binding leucine-rich-repeat receptors (NLRs), receptor-like cytoplasmic kinases, calcium channels, transcription factors, phytohormones, phytoalexins, etc. BSR can be achieved by modifying such components through conventional breeding, genetic engineering, and genome editing. Some chemicals are also effective in enhancing plant immunity. This Special Issue invites original submissions that address basic and applied research on BSR, including molecular mechanisms of disease resistance, transgenic and genome editing approaches and conventional breeding, as well as chemical-induced BSR.

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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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