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Broad-Spectrum Disease Resistance in Plants

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Deadline for manuscript
submissions:

20 June 2024

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.



mdpi.com/si/169711

Special Issue



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Message from the Editor-in-Chief

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