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Biology and Current–Prospective Methods for the Detection and Management of Plant Pathogens for Sustainable Agriculture

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Message from the Guest Editors

Detecting and subsequently managing plant pathogens is crucial for sustainable agriculture. Traditional techniques, such as crop rotation, the utilisation of resistant varieties, sanitation practices amalgamated with omics techniques, and genetic approaches, can significantly contribute to the development of effective and sustainable strategies for plant pathogen control. These advanced techniques continue to drive innovations in agriculture, contributing to improved crop yields, reduced chemical inputs, and enhanced global food security.

By structuring a Special Issue in this realm, we aim to provide a comprehensive and cohesive overview of recent advancements in microbe identification and the application of multi-omics approaches, including genomics, transcriptomics, proteomics, and metabolomics, in unveiling the molecular mechanisms of pathogen defence in plants. Nevertheless, this Special Issue covers the potential implications of the development of novel antimicrobial strategies, pathogen genome and biotechnological innovations for mitigating the impact of plant diseases, improving crop productivity, and ensuring sustainable agricultural practices.



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Special Issue



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Message from the Editor-in-Chief

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