

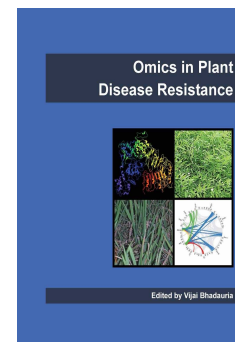
Omics in Plant Disease Resistance

Edited by: **Vijai Bhaduria**
University of Saskatchewan, Canada

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Genomics and post-genomics technologies, including genomics, transcriptomics, proteomics, metabolomics, next-generation sequencing-based genotyping and mass spectrometry, are becoming increasingly important in agricultural research and in particular for the genetic improvement of crops for disease resistance.

Distinguished scientists from around the world, under the expert guidance of the editor Vijai Bhaduria, overview and critically analyse the omics technologies currently being used in agricultural research. The authors review the practical applications and implications of these technologies in the genetic improvement of crops for resistance against various viral, bacterial and fungal diseases of economic significance. Topics include: resistance to fungal diseases in lentil, proteomic studies in rice, metabolomics of disease resistance in crops, omics approaches in *Brassica*, resistance to planthopper-borne viruses, resistance to root-knot nematodes, complex oomycete plant interactions, omics of pathogen resistant plants, rice-*Magnaporthe* interaction, role of nitric oxide, overview of proteomics tools, and pathogen resistance in legumes. In each case the authors comprehensively describe the most relevant technology, the latest applications and the most recent scientific research.

This volume is essential reading for everyone involved in plant disease resistance and crop improvement and is also highly recommended for all plant scientists.

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3. Current Status of Proteomic Studies on Defense Responses in Rice (*Xifeng Chen, Vijai Bhaduria and Bojun Ma*)
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