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Altri autori (Persone)	ChenJen-Tsung
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Nota di contenuto	Chapter 1. A prospective analysis of the interaction of nanoparticles with phyto-pathogens and Plants: Their Impact on Plant Health -- Chapter 2. Impact of nanopriming on Physio-Biochemical and defense process of Plants against pathogens -- Chapter 3. Formulation of novel nano based pesticides and fertilizers their role in mitigating the biotic stresses of crops -- Chapter 4. Application of nanomaterials in managing biotic stress of plants induced by phyto-pathogenic fungi -- Chapter 5. Application of nanomaterials in managing biotic stress of plants induced by pathogenic bacteria -- Chapter 6. Role of different nanomaterials in managing biotic stress of plants induced by pathogenic insect, viruses and phytoparasitic nematodes -- Chapter 7. Nanofertilizers: Synthesis, Applications, Chemistry and transport in

plants -- Chapter 8. Phyto-assisted synthesized metal nanoparticles and their effect in inducing defense response in plants -- Chapter 9. Fungi-assisted synthesis of nanoparticles and their effect on plant pathogens -- Chapter 10. Bacteria assisted synthesis of nanoparticles and their effect on plants and phytopathogens -- Chapter 11. Elucidating the role of Silicon and Titanium nanoparticles in reducing the biotic stress of plants -- Chapter 12. Seed priming and spraying with Zinc Oxide and Copper Oxide mitigates disease in crop plants and induces resistance against pathogens -- Chapter 13. Role of Magnesium oxide, Magnese, Gold and Nickle nanoparticles in crop production.

Sommario/riassunto

This book provides new insight and a better understanding of nanotechnology in mitigating crop biotic stresses.It covers crop diseases and different nano-based management strategies used to manage pathogens and plant-parasitic nematodes damaging crops. Nanoparticles have the potential to revolutionize crop yield and can control plant biotic stress. Nanotechnology in plant pathology is a new frontier among various nanotechnological applications. Nanotechnology applications include the development of nano-based pesticides and nanoformulations of chemicals for crop improvement by reducing biotic stress. Different nanomaterials like ZnONPs, SiO2NPs, CuONPs, AgNPs, and TiO2NPs have been examined for their impacts on plant growth and biotic stress management. This book deals with the advanced use of nanotechnology in managing the biotic stress of crops and improving crop production. It covers these issues and many more. Each chapter focus on one particular topic. Incorporate chapters provide detailed information on nanotechnology and may help in future research. This book will be useful for researchers, professors, and postgraduate and undergraduate students, especially concerning agriculture and plant pathology.