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Nota di contenuto	Chapter 1. Applications of Plant-Microbe Interactions in Agro-ecosystems -- Chapter 2. Exploring the Phyllosphere Bacterial Community for Improving Tree Crops Protection -- Chapter 3. Microbes Core to Sustainable Agriculture -- Chapter 4. Bacteria Inducing Legume Nodules Involved in the Improvement of Plant Growth, Health and Nutrition -- Chapter 5. Applications of Beneficial Microbe in Arid and Semiarid Agroecosystem: IAA Producing Bacteria -- Chapter 6. Role of Endophytes in Plant Health and Abiotic Stress Management -- Chapter 7. Affirmative Plant-Microbe Interfaces towards Agro-ecosystem Sustainability -- Chapter 8. Emerging Insight on Rhizobacterial Functions -- Chapter 9. Microbiome in Plant Health and Disease: Challenges and Opportunities -- Chapter 10. Influence of

Rhizospheric Microbiome in Plant Health Management -- Chapter 11. Role of Microbes in Plant Health, Disease and Abiotic Stress Management -- Chapter 12. Plant- Microbe Interactions in Agro-Ecosystem- An Application -- Chapter 13. Biodiversity and Biotechnological Applications of Microorganisms Associated with Tropical Plants -- Chapter 14. Rhizobia for Biological Control of Plant Diseases -- Chapter 15. Bioactive Compounds Produced by Biocontrol Agents Driving Plant Health -- Chapter 16. The Continuous Story of Truffles Plant Interaction -- Chapter 17. Can Soil Microorganisms Reduce Broomrape (*Orobanch* spp.) Infestation in Cropping Systems? -- Chapter 18. Environmental perspectives of plant-microbe nexus for soil and water remediation -- Chapter 19. Development of Future Bioformulations for Sustainable Agriculture -- Chapter 20. Exploring Diversity of Bacterial Endophyte Communities Using Advanced Sequencing Technology -- Chapter 21. Perceptions of Microbe-Microbe, Plant-Microbiome Interfaces: The Metagenomic Manoeuvre -- Chapter 22. Metagenomic Approach In Relation To Microbe-Microbe; Plant-Microbiome-Interactions. .

Sommario/riassunto

The book discusses the complex interactions between plants and their associated microbial communities. It also elucidates the ways in which these microbiomes are connected with the plant system, and how they affect plant health. The different chapters describe how microbiomes affect plants with regard to immunity, disease conditions, stress management and productivity. In addition, the book describes how an 'additional plant genome' functions as a whole organ system of the host, and how it presents both challenges and opportunities for the plant system. Moreover, the book includes a dedicated section on using omics tools to understand these interactions, and on exploiting them to their full potential. .
