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Disciplina	631.4
Soggetti	Soil science Soil conservation Agriculture Microbial ecology Biotic communities Environmental chemistry Sustainable development Soil Science & Conservation Microbial Ecology Ecosystems Environmental Chemistry Sustainable Development
Lingua di pubblicazione	Inglese
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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Microbial Signaling in Plant-Microbe Interactions and Its Role on Sustainability of Agroecosystems -- Exploiting Beneficial Traits of Plant Associated Fluorescent Pseudomonads for Plant Health -- N2-fixing Cyanobacterial Systems as Biofertilizer -- Exploring the Role of Secondary Metabolites of Trichoderma in Tripartite Interaction with Plant and Pathogens -- Managing the Soil Fertility through Microbes: Prospects, Challenges and Future strategies -- Trichoderma: A Potent Fungus as Biological Control Agent -- Bioprospecting of Genes from Microbes for Stress Management in Agricultural Crops -- Improving Soil Fertility and Soil Functioning in Cover Cropped Agro-ecosystems

with Symbiotic Microbes -- Actinobacteria in Agricultural and Environmental Sustainability -- Atmospheric Carbon Sequestration through Microalgae: Status, Prospects and Challenges -- BioGro – a Plant Growth-Promoting Bio-Fertiliser Validated by 15 Years' Research from Laboratory Selection to Rice Farmer's Fields of the Mekong Delta -- Priming Host Defence Against Biotic Stress by Arbuscular Mycorrhizal Fungi -- Role of Phosphate Solubilising Microorganism in Sustainable Agriculture Development.

Sommario/riassunto

This two-volume work is a testament to the increasing interest in the role of microbes in sustainable agriculture and food security. Advances in microbial technologies are explored in chapters dealing with topics such as carbon sequestration, soil fertility management, sustainable crop production, and microbial signaling networks. Volume I is a collection of research findings that invites readers to examine the application of microbes in reinstating degraded ecosystems and also in establishing sustainable croplands. Highly readable entries attempt to close the knowledge gap between soil microbial associations and sustainable agriculture. An increase in the global population with changing climate is leading to environments of various abiotic and biotic stresses for agricultural crops. It therefore becomes important to identify the techniques to improve soil fertility and function using different microbial groups such as actinobacteria, microalgae, fluorescent pseudomonads and cyanobacterial systems. These are examined in this volume in greater detail. This work is a significant contribution to research in this increasingly important discipline, and will appeal to researchers in microbiology, agriculture, environmental sciences, and soil and crop sciences. .
