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Nota di contenuto	Methanotrophs: An Emerging Bioremediation Tool Due to Unique Broad Substrate Enzyme Methane Monooxygenase -- Methanotrophs: Methane Mitigation, Bioremediation and Wastewater Treatment -- Prospects of Plant-Bacteria Interactions in Remediation of Metal Contaminated Soils -- Cyanoremediation: A Green-Clean Tool for Decontamination of Synthetic Pesticides from Agro- and Aquatic Ecosystems -- Aromatic Plant-Microbe Associations: A Sustainable Approach for Remediation of Polluted Soils -- Cyanobacteria-mediated bioremediation of heavy metals -- Biochar application in management of paddy crop production and methane mitigation -- Role of

Rhizospheric Microbes in Heavy Metal Uptake in Metallophytes -- Role of Biosurfactants on Microbial Degradation of Oil Contaminated Soils -- Microbial Oxidation of Atmospheric Methane in Natural and Agricultural Upland Soils -- Microbial Mediated Lindane Bioremediation: A Cost Effective and Naturally Renewable Technology -- Wastewater Effluent Discharge: Impact on Human Health and Microbial Remediation.

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 plant-microbe interactions, rhizoremediation and cyanoremediation, and bio-immobilization. Volume II is a collection of research findings that invites readers to examine the application of microbes in pollution reduction, decontamination of agro- and aquatic ecosystems, and remediation of various toxic compounds. Highly readable entries attempt to close the knowledge gap between soil microbial associations and sustainable agriculture. Traditional agricultural management techniques have relied heavily on application of chemical fertilizers and pesticides; and recent land use change practices have led to over exploitation of natural resources. Strategies outlined here simplify a complicated picture of the way microbial communities can improve the quality of environment and eliminate food scarcity in the coming generations. This work is a significant contribution to research in this increasingly important discipline of soil sciences, and will appeal to researchers in microbiology, agriculture, environmental sciences, and soil and crop sciences.