

1. Record Nr.	UNINA9910502980803321
Titolo	Plant, Soil and Microbes in Tropical Ecosystems // edited by Suresh Kumar Dubey, Satish Kumar Verma
Pubbl/distr/stampa	Singapore : , : Springer Nature Singapore : , : Imprint : Springer, , 2021
ISBN	981-16-3364-9
Edizione	[1st ed. 2021.]
Descrizione fisica	1 online resource (397 pages)
Collana	Rhizosphere Biology, , 2523-8450
Disciplina	579.334
Soggetti	Microbial ecology Microbiology Soil science Biotechnology Microbial genetics Microbial Ecology Soil Science Microbial Genetics Rizobiàcies Relacions planta-microbi Llibres electrònics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Chapter 1. Plant- Rhizobacteria Interactions to Induce Biotic and Abiotic Stress Tolerance in Plants -- Chapter 2. Rhizospheric and endophytic microorganisms and their role in alleviation of salinity stress in plants -- Chapter 3. Rhizospheric diversity of cyanobacteria and their significance from tropical ecosystem -- Chapter 4. Cyanobacteria in Rhizosphere: Dynamics, Diversity and Symbiosis -- Chapter 5. Effects of Herbicides on Soil Enzymes and their Regulatory Factors in Agroecosystem: A Review -- Chapter 6. Diversity of Pathogenic Fungi in Agricultural Crops -- Chapter 7. Application of soil microorganisms for agricultural and environmental sustainability: a review -- Chapter 8. Biotic constraints to wheat production in tropics: microbial control strategies and mechanism -- Chapter 9. Phytohormones act as a

fundamental regulator in plant-microbe association under stress parameters -- Chapter 10. Use of PGPR to optimize soil and crop productivity under abiotic stress -- Chapter 11. Frame work for studying rhizospheric microflora under the effect of improved crop variety -- Chapter 12. Role of rhizospheric microbes in disease suppression during seedlings formation in millets -- Chapter 13. Metagenomics of plant rhizosphere and endophytic association: concepts and applications -- Chapter 14. Methods of assessments of microbial diversity and their functional role in soil fertility and crop productivity- Chapter 15. Development of biofertilisers and microbial consortium an approach to sustainable agriculture practices -- Chapter 16. Biofertilizers as Microbial Consortium for Sustainability in Agriculture -- Chapter 17. Biofertilizers And Biopesticides: A Whole New Dimension for Ameliorating Soil Fertility and Organic Agriculture Practice.-.

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#### Sommario/riassunto

This book describes the multitude of interactions between plant, soil, and micro-organisms. It emphasizes on how growth and development in plants, starting from seed germination, is heavily influenced by the soil type. It describes the interactions established by plants with soil and inhabitant microbial community. The chapters describe how plants selectively promote certain microorganisms in the rhizospheric ecozone to derive multifarious benefits such as nutrient acquisition and protection from diseases. The diversity of these rhizospheric microbes and their interactions with plants largely depend on plant genotype, soils attributes, and several abiotic and biotic factors. Most of the studies concerned with plant-microbe interaction are focused on temperate regions, even though the tropical ecosystems are more diverse and need more attention. Therefore, it is crucial to understand how soil type and climatic conditions influence the plant-soil-microbes interaction in the tropics. Considering the significance of the subject, the present volume is designed to cover the most relevant aspects of rhizospheric microbial interactions in tropical ecosystems. Chapters include aspects related to the diversity of rhizospheric microbes, as well as modern tools and techniques to assess the rhizospheric microbiomes and their functional roles. The book also covers applications of rhizospheric microbes and evaluation of prospects improving agricultural practice and productivity through the use of microbiome technologies. This book will be extremely interesting to microbiologists, plant biologists, and ecologists.

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