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Descrizione fisica	1 online resource (357 pages)
Collana	Environmental and Microbial Biotechnology, , 2662-169X
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Nota di contenuto	Chapter 1. Molecular approaches of microbial diversity in agricultural soil -- Chapter 2. Microorganisms used as growth regulators in modern agriculture -- Chapter 3. Microbes mediated approaches for improving plant productivity and quality -- Chapter 4. Microbial fertilizer as an alternative to chemical fertilizer in modern agriculture -- Chapter 5. Phosphate solubilizing microorganisms: Potential bioinoculants for sustainable agriculture -- Chapter 6. Arbuscular mycorrhizal fungi: A next generation biofertilizer for sustainable agriculture -- Chapter 7. Fungal endophytes: potential benefits of their future use in plant stress tolerance and agriculture -- Chapter 8. Mining the potential and biodiversity of Trichoderma in the domain of agriculture -- Chapter 9. Current approaches for alleviating abiotic stress tolerance in crops: role of beneficial microorganisms -- Chapter 10. Role of engineered microbes in sustainable agriculture -- Chapter 11. Extreme microorganisms for sustainable agriculture -- Chapter 12. Molecular basis of stress tolerant genes in extreme microorganisms -- Chapter 13. Cellulose degradation microorganisms and environmental friendly solution to the agricultural waste management -- Chapter 14. Effects

	of microbial signaling in plant growth and development.
Sommario/riassunto	This book discusses genetic engineering of both plants and microbes for making agricultural practices more productive and sustainable. It chapters explore the understanding of the interaction between plants and microbes, and genomic information to modify the metabolism of plants or microbes to further enhance the beneficial interaction. The book covers the development of commercial inoculants including selection of appropriate plant growth-promoting rhizobacteria/ phosphate solubilize bacteria based on target host plant, soil type, indigenous microbial communities, environmental conditions, inoculant density, suitability of carriers and compatibility with integrated crop management. This is a relevant content for scientists and researchers working on soil biology, sustainable agricultural and plant physiology. Also, this book is a useful read for graduate and post graduate students of agriculture, botany and microbiology.