

1. Record Nr.	UNINA9910253942003321
Titolo	Mycorrhiza - Eco-Physiology, Secondary Metabolites, Nanomaterials // edited by Ajit Varma, Ram Prasad, Narendra Tuteja
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2017
ISBN	3-319-57849-9
Edizione	[4th ed. 2017.]
Descrizione fisica	1 online resource (334 pages) : illustrations, tables
Disciplina	589.20452482
Soggetti	Biotechnology Botany Forests and forestry Physical geography Microbial genetics Plant Science Forestry Earth System Sciences Microbial Genetics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	Carbon Fluxes in Mycorrhizal Plants -- Basic and Applied Research for Desert Truffle Cultivation -- The Role of Arbuscular Mycorrhizal Fungi and the Mycorrhizal-like Fungus Piriformospora indica in Biocontrol of Plant Parasitic Nematodes.- Mycorrhizal Fungi under Biotic and Abiotic Stress.- Role of Arbuscular Mycorrhizal Fungi (AMF) in Salinity Tolerance and Growth Response in Plants Under Salt Stress Conditions. - Arbuscular Mycorrhizal Technology Based on Ecosystem Services Rendered by Native Flora for Improving Phosphorus Nutrition of Upland Rice: Status and Prospect.- Arbuscular Mycorrhizal Fungi in Redeeming Arsenic Toxicity in Plants.- Co-cultivation of Piriformospora indica with Azotobacter sp.- Arbuscular Mycorrhizal Symbiosis- Genetic and Functional Diversity.- Mycorrhizal Symbiosis: Ways Underlying Plant–Fungus Interactions.- The Management of the Mycorrhizal Soil

Infectivity: Ecological and Technical Approaches.- ;Reactive Oxygen Species (ROS) Metabolism and Signaling in Plant-Mycorrhizal Association Under Biotic and Abiotic Stress Conditions.- Stimulated Growth of *Lycopersicon esculentum* CLA 1131 in Presence of *Piriformospora indica* and Vermicompost.- Promotion and Value Addition to Some Important Medicinal Plants Under Saline Condition by Intervention of a Novel Mycorrhizal Formulation.- Co-cultivation of *Piriformospora indica* and *Azotobacter chroococcum* for Production of Artemisinin.- Microbial Symbiosis and Bioactive Ingredients of Medicinal Plants.- Cultivation of *Piriformospora indica* with Nanomaterial in Bioreactor.- Understanding the Mycorrhiza-Nanoparticles Interaction.

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### Sommario/riassunto

This is the fourth updated and revised edition of a well-received book that emphasises on fungal diversity, plant productivity and sustainability. It contains new chapters written by leading experts in the field. This book is an up-to-date overview of current progress in mycorrhiza and association with plant productivity and environmental sustainability. The result is a must hands-on guide, ideally suited for agri-biotechnology, soil biology, fungal biology including mycorrhiza and stress management, academia and researchers. The topic of this book is particularly relevant to researchers involved in mycorrhiza, especially to food security and environmental protection. Mycorrhizas are symbioses between fungi and the roots of higher plants. As more than 90% of all known species of plants have the potential to form mycorrhizal associations, the productivity and species composition and the diversity of natural ecosystems are frequently dependent upon the presence and activity of mycorrhizas. The biotechnological application of mycorrhizas is expected to promote the production of food while maintaining ecologically and economically sustainable production systems.

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