

Contents

1	Symbiosis: The Art of Living	1
	Ajit Varma and Aparajita Das	
2	Analysis of Rhizosphere Fungal Communities Using rRNA and rDNA	29
	Ari Jumpponen	
3	Use of Mycorrhiza Bioassays in Ecological Studies	41
	I.A.F. Djuuna, L.K. Abbott, and Z.M. Solaiman	
4	<i>In Vivo</i> Model Systems for Visualisation, Quantification and Experimental Studies of Intact Arbuscular Mycorrhizal Networks	51
	Manuela Giovannetti, Luciano Avio, Cristiana Sbrana, and Paola Fortuna	
5	Measurement of Net Ion Fluxes Using Ion-Selective Microelectrodes at the Surface of Ectomycorrhizal Roots	65
	A. Gobert and C. Plassard	
6	Assessment of Phosphatase Activity Associated with Mycorrhizal Fungi by Epi-Fluorescent Microscopy	89
	Ingrid M. van Aarle	
7	<i>In Vitro</i> Compartmented Systems to Study Transport in Arbuscular Mycorrhizal Symbiosis	101
	H. Dupré de Boulois, L. Voets, and S. Declerck	
8	Use of the Autofluorescence Properties of AM Fungi for AM Assessment and Handling	123
	B. Dreyer and A. Morte	

9	Role of Root Exudates and Rhizosphere Microflora in the Arbuscular Mycorrhizal Fungi-Mediated Biocontrol of <i>Phytophthora nicotianae</i> in Tomato	141
	Mario Jolicoeur, Laëtitia Lioussanne, and Marc St-Arnaud	
10	Assessing the Mycorrhizal Diversity of Soils and Identification of Fungus Fruiting Bodies and Axenic Cultures	159
	Dirk Krüger, Manisha Sharma, and Ajit Varma	
11	Isolation of Metabolically Active Arbuscules and Intraradical Hyphae from Mycorrhizal Roots	189
	Zakaria M. Solaiman	
12	Interaction with Soil Microorganisms	197
	R. Hampp and M. T. Tarkka	
13	Isolation, Cultivation and <i>In Planta</i> Visualization of Bacterial Endophytes in Hanging Roots of Banyan Tree (<i>Ficus bengalensis</i>)	211
	Khyati Pathak, Haresh Keharia, and Amit C. Kharkwal	
14	Micro-PIXE Analysis for Localization and Quantification of Elements in Roots of Mycorrhizal Metal-Tolerant Plants	227
	Katarina Vogel-Mikuš, Paula Pongrac, Primož Pelicon, Primož Vavpetič, Bogdan Povh, Hermann Bothe, and Marjana Regvar	
15	Functional Genomic of Arbuscular Mycorrhizal Symbiosis: Why and How Using Proteomics	243
	Eliane Dumas-Gaudot, Ghislaine Recorbet, Franck Robert, Benoit Valot, and Nardjis Amieur	
16	Using Stable Carbon Isotope Labelling in Signature Fatty Acids to Track Carbon Allocation in Arbuscular Mycorrhiza	275
	Pål Axel Olsson	
17	¹⁵N Enrichment Methods to Quantify Two-Way Nitrogen Transfer Between Plants Linked by Mycorrhizal Networks	285
	XH He, C Critchley, K Nara, D Southworth, and CS Bledsoe	
18	Analyses of Ecophysiological Traits of Tropical Rain Forest Seedlings Under Arbuscular Mycorrhization: Implications in Ecological Restoration	293
	Javier Álvarez-Sánchez, Irene Sánchez-Gallen, and Patricia Guadarrama	

19	Techniques for Arbuscular Mycorrhiza Inoculum Reduction	307
	Isabel Brito, Mário de Carvalho, and Michael J Goss	
20	Best Production Practice of Arbuscular Mycorrhizal Inoculum	319
	Falko Feldmann, Imke Hutter, and Carolin Schneider	
21	The Use of AMF and PGPR Inoculants Singly and Combined to Promote Microplant Establishment, Growth and Health	337
	Mauritz Vestberg and Alan C. Cassells	
22	Co-Culture of <i>Linum album</i> Cells and <i>Piriformospora indica</i> for Improved Production of Phytopharmaceuticals.	361
	A. Baldi, A. Jain, N. Gupta, A.K. Srivastava, and V.S. Bisaria	
23	Fungal Elicitors for Enhanced Production of Secondary Metabolites in Plant Cell Suspension Cultures.	373
	A. Baldi, A.K. Srivastava, and V.S. Bisaria	
24	Auxin Production by Symbiotic Fungi: Bioassay and HPLC-MS Analysis	381
	Anke Sirrenberg, Richard Splivallo, Astrid Ratzinger, Katharina Pawloswski, and Petr Karlovsky	
25	Siderophores of Mycorrhizal Fungi: Detection, Isolation and Identification	393
	K. Haselwandter and G. Winkelmann	
26	Biology and Molecular Approaches in Genetic Improvement of Cultivated Button Mushroom (<i>Agaricus Bisporus</i>)	403
	E. Mohammadi Goltapeh, Y.R. Danesh, Shwet Kamal, and Ajit Varma	
	Index	423