

Contents

1	Use of Mycorrhiza in Sustainable Agriculture and Land Restoration	1
	Zakaria M. Solaiman and Bede Mickan	
2	Assessing Economic Benefits of Arbuscular Mycorrhizal Fungi as a Potential Indicator of Soil Health	17
	L.K. Abbott and S. Lumley	
3	Contribution of Dynamics of Root Colonisation by Arbuscular Mycorrhizal Communities to Ecosystem Function	33
	Sutarman Gafur	
4	Biofertilizers with Arbuscular Mycorrhizal Fungi in Agriculture	45
	Olmar B. Weber	
5	Mycorrhizal Inoculum Production	67
	Shivom Singh, Kajal Srivastava, Suvigya Sharma, and A.K. Sharma	
6	Use of Arbuscular Mycorrhizal Fungal Inocula for Horticultural Crop Production	81
	Keitaro Tawaraya	
7	Management of the Arbuscular Mycorrhizal Symbiosis in Sustainable Crop Production	89
	C. Yang, W. Ellouze, A. Navarro-Borrell, A. Esmaeili Taheri, R. Klabi, M. Dai, Z. Kabir, and C. Hamel	
8	Application of Arbuscular Mycorrhizal Fungi in Production of Annual Oilseed Crops	119
	Mahaveer P. Sharma, Sushil K. Sharma, R.D. Prasad, Kamal K. Pal, and Rinku Dey	

9	Arbuscular Mycorrhizal Diversity and Function in Grassland Ecosystems	149
	Tomoko Kojima, Sasha Jenkins, Anjani Weerasekara, and Jing-Wei Fan	
10	Application of AM Fungi to Improve the Value of Medicinal Plants	171
	Ying Long Chen, Jun Xi Li, Lan Ping Guo, Xin Hua He, and Lu Qi Huang	
11	Arbuscular Mycorrhizas and Their Role in Plant Zinc Nutrition	189
	Timothy R. Cavagnaro	
12	Function of Mycorrhizae in Extreme Environments	201
	Catherine A. Zabinski and Rebecca A. Bunn	
13	Alleviation of Soil Stresses by Arbuscular Mycorrhizal Fungi	215
	Obed F. Madiba	
14	Mechanisms for Alleviation of Plant Water Stress Involving Arbuscular Mycorrhizas	225
	Bede Mikan	
15	Role of Mycorrhizal Fungi in the Alleviation of Heavy Metal Toxicity in Plants	241
	Hamid Amir, Philippe Jourand, Yvon Cavaloc, and Marc Ducousso	
16	Arsenic Uptake and Phytoremediation Potential by Arbuscular Mycorrhizal Fungi	259
	Xinhua He and Erik Lilleskov	
17	Arbuscular Mycorrhizal Colonization and Agricultural Land Use History	277
	Irnanda A.F. Djuuna	
18	Contribution of Arbuscular Mycorrhizal Fungi to Soil Carbon Sequestration	287
	Zakaria M. Solaiman	
19	Biochar as a Habitat for Arbuscular Mycorrhizal Fungi	297
	Noraini M. Jaafar	
20	Application of AM Fungi in Remediation of Saline Soils	313
	Anne Nurbaity	
21	Use of Mycorrhizal Fungi for Forest Plantations and Minesite Rehabilitation	325
	Ying Long Chen, Run Jin Liu, Yin Li Bi, and Gu Feng	

22 Use of Arbuscular Mycorrhizal Fungi for Reforestation of Degraded Tropical Forests 357
Keitaro Tawaraya and Maman Turjaman

23 Recent Advances in Cultivation of Edible Mycorrhizal Mushrooms 375
Yun Wang and Ying Long Chen

Index 399

Mycorrhizal Fungi: Use in Sustainable Agriculture and
Land Restoration

Solaiman, Z.; Abbott, L.K.; Varma, A. (Eds.)

2014, IX, 407 p. 8 illus., 5 illus. in color., Hardcover

ISBN: 978-3-662-45369-8