

Contents

Part I Phylogeny

1 Hypogeous Desert Fungi	3
Gabriel Moreno, Pablo Alvarado, and José Luis Manjón	
2 Nomenclatural History and Genealogies of Desert Truffles	21
Gábor M. Kovács and James M. Trappe	
3 Cryptic and New Species	39
Juan-Julián Bordallo and Antonio Rodríguez	

Part II Conditions Favoring Mycorrhiza Formation

4 Soil Properties	57
Eleonora Bonifacio and Asunción Morte	
5 Types of Mycorrhizal Association	69
Nurit Roth-Bejerano, Alfonso Navarro-Ródenas, and Almudena Gutiérrez	
6 Pre-symbiotic Interactions Between the Desert Truffle Terfezia boudieri and Its Host Plant Helianthemum sessiliflorum	81
Yaron Sitrit, Nurit Roth-Bejerano, Varda Kagan-Zur, and Tidhar Turgeman	
7 Benefits Conferred on Plants	93
Varda Kagan-Zur, Tidhar Turgeman, Nurit Roth-Bejerano, Asunción Morte, and Yaron Sitrit	

Part III Distribution

8 Ecology and Distribution of Desert Truffles in Western North America	107
James M. Trappe, Gábor M. Kovács, and Nancy S. Weber	
9 The European Desert Truffles	121
Gérard Chevalier	
10 Mediterranean Basin: North Africa	143
Lahsen Khabar	
11 Asian Mediterranean Desert Truffles	159
Varda Kagan-Zur and Mehmet Akyuz	
12 Non-Mediterranean Asian Desert Countries	173
Ali Ammarellou, Yun Wang, Gorbanali Nematzadeh, and Mohammadali Tajick	
13 Ecology and Distribution of Desert Truffles in the Kalahari of Southern Africa	193
James M. Trappe, Andrew W. Claridge, and Varda Kagan-Zur	
14 Ecology and Distribution of Desert Truffles in the Australian Outback	203
Andrew W. Claridge, James M. Trappe, and David J. Paull	

Part IV Fruit-Body Attributes

15 The History of Desert Truffle Use	217
Elinoar Shavit	
16 Enzymes in <i>Terfezia clavaryi</i> Ascocarps	243
Manuela Pérez-Gilabert, Francisco García-Carmona, and Asunción Morte	
17 Nutritional and Antioxidant Properties of <i>Terfezia</i> and <i>Picoa</i>	261
Magdalena Martínez-Tomé, Luana Maggi, Antonia María Jiménez-Monreal, María Antonia Murcia, and Josep Antoni Tur Marí	
18 Nutritional and Antioxidant Properties of the White Desert Truffle <i>Tirmania nivea</i> (Zubaidi)	275
Abdul Ameer A. Al-Laith	
19 Preservation of Truffles	299
María Antonia Murcia, Luana Maggi, Ghulam Hussain, Antonia María Jiménez-Monreal, Magdalena Martínez-Tomé, and Ibrahim M. Alruqaie	

20 The Medicinal Value of Desert Truffles 323
Elinoar Shavit and Efrat Shavit

Part V Cultivation

21 Domestication: Preparation of Mycorrhizal Seedlings 343
Asunción Morte and Alberto Andrino

**22 Preparation and Maintenance of Both Man-Planted
and Wild Plots 367**
Mario Honrubia, Alberto Andrino, and Asunción Morte

Index 389

Desert Truffles

Phylogeny, Physiology, Distribution and Domestication

Kagan-Zur, V.; Roth-Bejerano, N.; Sitrit, Y.; Morte, A.

(Eds.)

2014, IX, 397 p. 97 illus., 47 illus. in color., Hardcover

ISBN: 978-3-642-40095-7