1. Record Nr. UNINA9910686470603321

Titolo	Fungal Resources for Sustainable Economy : Current Status and Future Perspectives / / edited by Ishwar Singh, Vijay Rani Rajpal, Shrishail S. Navi
Pubbl/distr/stampa	Singapore : , : Springer Nature Singapore : , : Imprint : Springer, , 2023
ISBN	981-19-9103-0
Edizione	[1st ed. 2023.]
Descrizione fisica	1 online resource (XVIII, 641 p. 1 illus.)
Disciplina	632.4
Soggetti	Fungi Mycology Microbiology Microbial genetics Microbial populations Microbial Genetics Microbial Communities
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Section I Fungi in Sustainable Economy: An Introduction -- Chapter 1. Impact of Fungi on the World Economy and its Sustainability: Status and Potentials -- Chapter 2. Sustainable Utilization of Fungal Resources: Applications in Plant and Animal Health -- Section II Fungal Resources: Current and Potential Industrial Applications -- Chapter 3. Role and Applications of Fungi in Food and Fermentation Technology -- Chapter 4. Fungal Keratinases: Enzymes with Immense Biotechnological Potential -- Chapter 5. Bioprospection of Endophytic Fungi for Extracellular Enzymes -- Chapter 6. Potential Antioxidant Enzymes from Fungi and Their Clinical Significance -- Chapter 7. Health Benefits of Mushrooms - An appraisal -- Chapter 8. Diversity of Ethnomedicinal Mushrooms from the Western Ghats of India and Their Sustainable Utilization -- Section III Fungal Resources: Current and Potential Agricultural Applications -- Chapter 9. Endophytic Fungi - Application in Combating Plant Pathogens and Sustainable Agriculture -- Chapter 10. Benefits and Potential of Arbuscular Mycorrhizal Fungi (AMF) in

Vegetable Crop Production -- Chapter 11. Arbuscular Mycorrhiza Fungi Resources for Sustainable and Climate-smart Cultivation of Maize -- Chapter 12. Role of Endophytic Fungi in Promoting Plant Health -- Chapter 13. Fungal Biocontrol Agents: A Sustainable Management Option for Soybean Diseases -- Chapter 14. Advances in Formulations and Efficacy of Mycopesticides for Plant Disease Management and Sustainable Yields -- Section IV Fungi and their Secondary Metabolites: Implications -- Chapter 15. Recent Advances in Fungal Secondary Metabolites and Their Applications -- Chapter 16. The Biological Implications of Fungi as Agents of Mycotoxigenicity and Potential Therapeutics in Medicine -- Chapter 17. A Potential Source of Medicines from Fungi: An Overview of Biologically Active Secondary Metabolites -- Chapter 18. Mycotoxins: Structure, Biosynthesis, Health effects, and their Biological detoxification -- Chapter 19. Mycotoxins: Detection Methods and Strategies for management -- Chapter 20. Mycotoxins as Food and Feed Contaminant: Effect on Health and Economy and Their Management -- Chapter 21. Aflatoxins: Occurrence, Biosynthesis Pathway, Management and Impact on Health -- Section V Fungi: Burden to Health and Indoor Environment -- Chapter 22. Fungi Impacting Human Health -- Chapter 23. Neglected Canine Fungal Zoonoses: Emerging threats, Diagnostics and Public Health -- Chapter 24. Impact of Fungi on Indoor Air Quality: Health Hazards and Management Strategies.

Sommario/riassunto

This edited book provides a comprehensive account of the new developments in various facets of fungal biology related to the impact and application of fungi on the sustainable economy. The book consists of 24 chapters distributed under five sections written by active researchers and academicians from India and abroad. The five sections of the book are- 1. Fungi in Sustainable Economy, 2. Fungal Resources: Current and Potential Industrial Applications, 3. Fungal Resources: Current and Potential Agricultural Applications, 4. Fungi and their Secondary metabolites: Implications and 5. Fungi: Burden to health and Indoor Environment. The book explores the utility of fungi as food, enzymes, organic compounds, nutraceuticals, pharmaceuticals and agricultural productivity promoter. It also highlights the negative fungal impacts on food production, health and environment. The book is useful to postgraduate students studying mycology, plant pathology, crop protection, agricultural sciences, and plant sciences. In addition, scientists involved in biological and agricultural research, crop management, and various industries that manufacture or utilize fungal products on a small to large scale shall also find the book helpful.