1. Record Nr. UNINA9910480089603321

Titolo	The Alatzomouri rock shelter : an early Minoan III deposit in eastern Crete / / edited by Vili Apostolakou, Thomas M. Brogan and Philip P. Betancourt ; with contributions from Vili Apostolakou [nine others]
Pubbl/distr/stampa	Philadelphia, Pennsylvania : , : INSTAP Academic Press, , [2017] Â©2017
ISBN	1-62303-415-9
Descrizione fisica	1 online resource (275 pages)
Collana	Prehistory Monographs ; ; 58
Disciplina	939.18
Soggetti	Caves - Greece - PacheiÌa AÌmmos Electronic books. Crete (Greece) Antiquities PacheiÌa AÌmmos (Greece) Antiquities
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia

2. Record Nr. UNINA9911018954503321

Autore	Adetunji Charles Oluwaseun
Titolo	Mushroom Biotechnology for Improved Agriculture and Human Health
Pubbl/distr/stampa	Newark : , : John Wiley & Sons, Incorporated, , 2025 ©2025
ISBN	9781394212675 1394212674 9781394212699 1394212690 9781394212682 1394212682
Edizione	[1st ed.]
Descrizione fisica	1 online resource (397 pages)
Altri autori (Persone)	EgbunaChukwuebuka IjabadeniyiOluwatosin Ademola KarunarathnaSamantha C
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Cover -- Series Page -- Title Page -- Copyright page -- Contents -- Preface -- Chapter 1 Application of Mushrooms in the Bioremediation of Environmental Pollutants -- Introduction -- Unique Characteristics of Fungi -- Specific Contaminants Targeted by Mushrooms -- Mechanisms of Mushroom Bioremediation -- Absorption and Accumulation of Contaminants by Mushrooms -- Transformation and Degradation of Pollutants -- Role of Enzymes and Metabolic Processes -- Advancements and Research in Mushroom Bioremediation -- Emerging Trends in Fungal Bioremediation -- Genetic Modification of Mushrooms for Enhanced Bioremediation -- Benefits of Mushroom Bioremediation -- Challenges and Limitations of Using Mushrooms -- Future Prospects and Research Opportunities -- Conclusion and Recommendations -- References -- Chapter 2 Application of Mushroom in the Management of Pest and Diseases Affecting Agricultural Crops -- 2.1 Introduction -- 2.2 Properties of Mushroom

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16.4 Proximate Constituents of Mushrooms.

Sommario/riassunto

The book is essential for those seeking to understand innovative and sustainable solutions to global food insecurity and health challenges, as it offers invaluable insights into the transformative potential of mushroom biotechnology and its applications. The intervention of microbial biotechnology in various sectors has displayed remarkable growth linked to sustainable innovations and biotechnological utilization of beneficial microorganisms, such as mushrooms, for the benefit of humanity. Recent advancements in mushroom biotechnology will prove successful due to mushrooms' nature as natural problem solvers, including their ability to enhance nutritional values obtained from agricultural crops, sustained health benefits derived from pharmacologically active substances used to manage human diseases, and improve crop production. This book will serve as one of the first volumes addressing the usefulness of mushroom biotechnology, giving detailed state-of-the-art information on recent advancements and how the industry could maximize profits. The volume will also assist the pharmaceutical and medical sectors by examining the discovery of novel pharmacological and bioactive compounds that could replace the various adverse effects when using synthetic drugs. It presents a simple, adaptable, reproducible methodology that will help researchers and scientists adopt these methodologies for similar projects. Readers will find that the book: Presents recent advances in the application of mushroom biotechnology in various sectors (food, agriculture, and health) for sustainable innovations for optimum benefit of mankind; Details applications of mushrooms for sustainable agriculture through their plant growth-promoting attributes and management of pests and diseases in plants and soils; Discusses the discovery of novel pharmacological substances from mushrooms for applications in the biomedical sector. Audience The book is valuable reference work for scientists and researchers working in the fields of pharmaceutical sciences, agricultural microbiology, plant pathology, botany, agriculture, microbiology, biotechnology, nanotechnology, environmental microbiology, and microbial biotechnology.