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Nota di contenuto	Chapter 1: Significant contributions of Prof. Shyam Bahadur Saksena to Indian mycology -- Chapter 2: Biology and significance of Saksenea vasiformis -- Chapter 3: History of Mycology in India: Some Glimpses -- Chapter 4: Various aspects of ammonia fungi -- Chapter 5: Marine Filamentous Fungi: Diversity, Distribution and Bioprospecting -- Chapter 6: Keratinophilic Fungi and Their Biotechnological Potentials -- Chapter 7: Fungal World of Cave Ecosystem -- Chapter 8: Anaerobic Gut Fungi -- Chapter 9: Fungal endophytes representing the diverse habitat and their role in plant protection -- Chapter 10: Fusarium oxysporum: Genomics, diversity and plant host interaction -- Chapter 11: Yeast genome sequencing: basic biology to biotechnology -- Chapter 12: Fungal differentiation: A model phenomenon to screen antifungal drugs -- Chapter 13: Candida albicans Biofilm as a Clinical Challenge -- Chapter 14: Characteristics and multifarious potential applications of HAP phytase of the unconventionalyeast Pichia anomala -- Chapter 15: Fungal Inulinolytic Enzymes: A current appraisal -- Chapter 16: Fungal Tannases: Recent

Advances and Industrial Applications -- Chapter 17: Mycoremediation: An alternative treatment option for heavy metal bearing waste water -- Chapter 18: Treatment of landfill leachate using fungi: An efficient and cost-effective strategy -- Chapter 19: Studies on Mycorrhizae in Pinus gerardiana, a threatened pine of the NW Himalayas -- Chapter 20: Role of phosphate solubilising fungi in sustainable agriculture -- Chapter 21: Biotechnological Advancements in Industrial Production of Arbuscular Mycorrhizal Fungi: Achievements, Challenges and Future Prospects -- Chapter 22: Role of Fungicides in Crop Health Management: Prospects and Challenges -- Chapter 23: Bioherbicides: Strategies, Challenges and Prospects -- Chapter 24: Characterization of lamellate mushrooms - An appraisal -- Chapter 25: Occurrence and distribution of mushrooms in semi–ever green Sal (Shorearobusta) forest Chhattisgarh, Central-India -- Chapter 26: Fungal Pigments: An Overview -- Chapter 27: Ex-situ Conservation of Fungi: A Review -- Chapter 28: Camouflaged mycotoxins in some field crops and forages: A review.

Sommario/riassunto

This book explores the developments in important aspects of fungi related to the environment, industrial mycology, microbiology, biotechnology, and agriculture. It discusses at length both basic and applied aspects of fungi and provides up-to-date laboratory-based data. Of the estimated three million species of fungi on Earth, according to Hawksworth and coworkers, more than 100,000 have been described to date. Many fungi produce toxins, organic acids, antibiotics and other secondary metabolites, and are sources of useful biocatalysts such as cellulases, xylanases, proteases and pectinases, to mention a few. They can also cause diseases in animals as well as plants and many are able to break down complex organic molecules such as lignin and pollutants like xenobiotics, petroleum and polycyclic aromatic compounds. Current research on mushrooms focuses on their hypoglycemic, anti-cancer, anti-pathogenic and immunity-enhancing activities. This ready-reference resource on various aspects of fungi is intended for graduate and post-graduate students as well as researchers in life sciences, microbiology, botany, environmental sciences and biotechnology.