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Nota di contenuto	Preface -- Exploration of macrofungi in sub-tropical semi-evergreen Indian forest ecosystems -- A Global Overview of Edible Mushrooms -- Molecular characterization of wild mushrooms: a paradigm shift from morphotyping -- Antimicrobial and hepatoprotective activities of edible mushrooms -- Mushroom-mediated Protection from Oxidative Damage to DNA -- Chemical and bioactive profiling of wild edible mushrooms -- Biotechnological requirements for the commercial cultivation of macrofungi: substrate and casing layer -- Role of mushroom fungi in decolourization of industrial dyes and degradation of agrochemicals -- Mushrooms: Isolation and purification of exopolysaccharides -- Novel prospective of wild mushroom polysaccharides as potential prebiotics -- Pharmaceutic prodigy of ergosterol and protein profile of Ganoderma lucidum -- Application of Wild Macrofungi as Anticancer

Therapeutics -- Recent advances in cultivation of edible mushrooms -- Medicinal mushrooms: Cultivation and pharmaceutical impact -- Biological control of microbial pathogens in edible mushrooms -- Cordycepin: A biotherapeutic molecule from medicinal mushroom -- Biosynthesis of Nanoparticles using Mushrooms -- Bioconversion and Biotransformation Efficiencies of Wild Macrofungi -- Wild macro-fungi from Northwest Himalayas: Future prospects and challenges -- Index.

Sommario/riassunto

Mushrooms are fleshy fungi with a high prospective for the production of secondary metabolites including extracellular enzymes with high agricultural and biotechnological significance. Worldwide, they are well recognized as supplementary foods due to their high nutritional values and their medicinal importance, which includes their uses in exhibiting antioxidant and antimicrobial activities, immune enhancer, and to be effective for the treatment of several diseases including diabetes and few types of cancers as well. According to recent studies, extracellular enzymes produced by several white-rot fungal strains such as Phanerochaete chrysosporium, Pleurotus sajor-caju and several mushrooms have shown a high capacity to decolorize dyes that are very harmful for the environment. Moreover, wild macrofungi have the capability to synthesize nanoparticles which are more useful for the treatment of cancer, gene therapy, DNA analysis and biosensors. Wild macrofungi are extremely important model for basic biology and commercial manufacture.