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Nota di contenuto	Antibacterial activity of Euphorbia hirta -- Molecular Characterization of Anogeissus acuminata genotypes employing RAPD markers -- An efficient protocol for plant regeneration of Phlogacanthus thyrsiflorus Nees: An important medicinal shrub -- Cloning, evolutionary relationship and microarray based expression analysis of WRKY transcription factors in wheat (Triticum aestivum L.) -- Leaf rust responsive expression profiling of TIFY transcription factor family in wheat (Triticum aestivum L.) -- A correlation study between drug resistance and plasmid profiling -- Optimization of surface sterilization process of selected dye yielding plants for isolation of bacterial endophytes -- Insights into fungal pectin lyase: an overview -- Control of Aflatoxin Biosynthesis in Peanut with Geocarposphere Bacteria : A Biotechnological Approach for Sustainable Development -- Developing efficient methods for unravelling headspace floral volatilome in Murraya paniculata for understanding ecological interactions -- Studies on

nutraceutical properties of Annaona Squamosa -- Automated Detection of Chronic Alcoholism Using Hilbert Huang Transformation -- Biosurfactant production by Pseudomonas fluorescens NCIM 2100 forming stable oil-in-water emulsions -- Identification and screening of potent inhibitors against spore wall proteins of Flacherie infected B. mori through molecular modelling and docking studies -- Growth Phase Dependent synthesis of Gold Nanoparticles Using Bacillus licheniformis -- A rapid method for detection and characterization of anthocyanins from Hibiscus, Ocimum and Syzygium species and evaluation of their antioxidant potential -- Phytochemical screening and antioxidant property of anthocyanins extracts from Hibiscus rosa-sinensis -- Study of biochemical changes on freeze dried and conventionaly dried white button mushroom as a sustainable method of food preservation -- Computational modeling of hepatocellular carcinoma associated parp-1 protein and structure base screening of potential inhibitor -- Ferulic acid decarboxylase from Bacillus cereus SAS-3006: purification and properties -- Marker assisted breeding of recombinant 1rs -1bl chromosome for improvement of bread making quality and yield of wheat (Triticum aestivum L.) -- Modelling of L-protein from Ebola virus and development of its new inhibitor molecules: an in-silico approach.

Sommario/riassunto

This book discusses different bioprocesses to produce value-added compounds, the science behind their production, the economics of their introduction to the marketplace, their environmental impacts, and their implications for world agriculture. It also provides insights into various technologies and protocols used. The major strength of biotechnology is its multidisciplinary nature and broad range of scientific approaches. Recent advances in various biotechnological fields are facilitating the production of fine chemicals, recombinant proteins, biomaterials and pharmaceuticals. Biotechnology plays an important role, especially in the fields of food production, renewable raw materials and energy, pollution prevention and bioremediation. Biotechnology’s greatest contribution is in agriculture – in making crops more efficient. Resource recovery, recycling and hazardous-waste disposal are other environmentally beneficial facets of biotechnology. Thus, biotechnology is a pivotal tool for sustainable development, which has become a priority for the world’s policy makers. The concept of sustainable development is based on the goal of increasing the basic standard of living of the world’s growing population, without depleting finite natural resources and degrading the environment. Emerging biotechnologies offer novel approaches with the potential to achieve the goal of sustainability and striking a balance between developmental needs and environmental conservation.