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| Nota di contenuto | Bamboo: origin, habitat, distributions and global prospective -- Molecular markers in bamboos: understanding reproductive biology, genetic structure, interspecies diversity and clonal fidelity for conservation and breeding -- Standard protocols for in vitro propagation of bamboo with emphasis on axillary shoot proliferation -- Somatic embryogenesis in bamboos: advances and prospects -- Initiation and establishment of cell suspension culture in bamboo -- Micro-morpho-anatomical alterations in micropropagated plants of endrocalamus strictus -- Micropropagation of bamboos and clonal fidelity assessment using molecular markers -- Standardization of laboratory to land transfer strategies of micropropagated plantlets of bamboo -- Management of bamboo genetic resources and clonal production systems -- Polymorphism and phylogenetic relationships in bamboo -- Transgenics approaches in Bamboo -- Advances in Conservation of Bamboo Genetic Resources through Whole Seeds Cryopreservation -- Application of Biotechnological Tool in Bamboo Improvement -- Ethnobamboology: traditional uses of bamboos and opportunities to exploit genomic resources for better exploitation -- |

Bamboo flowering in South America: what the past tells about the future -- Molecular Markers in Bamboo Genotyping: Prospects for Conservation and Breeding -- Application of bamboo in the food and pharmaceutical industry -- Functional pasta: a comparative study of the use of bamboo shoot fiber and white fibers -- Bamboo fiber as a substitute for fat and/or sugar in cookies -- Practical application of bamboo as a building material: trends and challenges.

Sommario/riassunto

“Green gold” or “Poor Man’s Timber” are commonly used terms for bamboo that is a valuable and renewable resource of the world, and has always been an elemental part of human beings in terms of social and economic value. Bamboo is considered a multipurpose plant and has a prolonged history as an adaptable and extensively used renewable resource in conventional and commercial applications. Therefore, the annual demands for bamboos have already out-crossed the annual yields across the world. And the current scenario has forced scientists to pay more attention to the utilization of biotechnological tools for better understanding and improving bamboos. The book provides an overview of the different biotechnological approaches to advance bamboo research and better utilization of bamboo resources for human beings. Various applications of biological techniques in relation to bamboo have been discussed in details, for example, plant tissue culture techniques, somatic embryogenesis, germplasm conservation techniques, use of the molecular markers, transcriptomics, polymorphism, and phylogenetic relations in bamboo. It also addresses the novel industrial applications of bamboo in structural, food, and pharmaceuticals along with traditional uses. The aggregated information in this book demonstrates the way for the improved and sustainable practice of bamboos to fulfill the future needs of the world. This book is intended for use in both the industry and academia.