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Nota di contenuto	Chapter 1. Production and Application of Novel of Bio-active Compounds by Endophytic Microbes -- Chapter 2. Endophytes - The Unmapped Repository For Natural Products -- Chapter 3. Microbial Hosts as a Promising Platform for Polyphenols Production -- Chapter 4. Endolichenic fungi From Common Lichens as New Sources for Valuable Bio-active Compounds -- Chapter 5. Strategic Approaches for the Purification of Glycosides from Natural Sources -- Chapter 6. Natural Products-Based Pancreatic Lipase Inhibitors for Obesity Treatment -- Chapter 7. Natural compounds extracted from medicinal plants and their applications -- Chapter 8. Seed Oils as a Source of Natural Bioactive Compounds -- Chapter 9. Essential Oils Extracted from Medicinal Plants and their Applications -- Chapter 10. Cellulose-based hydrogels: Present and Future -- Chapter 11. Influence of Elicitors and Eustressors on the Production of Plant Secondary Metabolites --

Chapter 12. KRAS as potential target in colorectal cancer therapy -- Chapter 13. Recent insights on the anticancer properties of flavonoids: Prospective candidates for cancer chemoprevention and therapy -- Chapter 14. Natural Compounds Extracted from *Moringa oleifera* and their Agricultural Applications -- Chapter 15. Natural compound from genus *Brassica* and their therapeutical activities -- Chapter 16. Antibacterial and Antifungal Agents of Higher Plants -- Chapter 17. Bio-active Compounds Isolated from Neem tree and their Applications -- Chapter 18. Role of Plant Secondary Metabolites as Antidiabetic Agents -- Chapter 19. Plant metabolites and Pharmacological activities of *Leptadenia pyrotechnica* (Forssk.) Decne -- Chapter 20. Functioning of Organosulfur Compounds from Garlic (*Allium sativum* Linn) in targeting risk factors mediated Atherosclerosis: A Crosstalk between Alternative and Modern Medicine -- Chapter 21. Biological activities and nutritional value of *Physalis peruviana* L -- Chapter 22. Yield, Chemical Composition and Biological Evaluation of the Essential Oil of *Baccharis Milleflora* in the Atlantic Rain Forest of the Paraná State in Brazil. .

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### Sommario/riassunto

Bioactive compounds produced by natural sources, such as plants, microbes, endophytic fungi, etc., can potentially be applied in various fields, including agriculture, biotechnology and biomedicine. Several bioactive compounds have proved to be invaluable in mediating plant-microbe interactions, and promoting plant growth and development. Due to their numerous health-promoting properties, these compounds have been widely used as a source of medication since ancient times. However, there is an unprecedented need to meet the growing demand for natural bioactive compounds in the flavor and fragrance, food, and pharmaceutical industries. Moreover, discovering new lead molecules from natural sources is essential to overcoming the rising number of new diseases. In this regard, natural bioactive compounds hold tremendous potential for new drug discovery. Therefore, this field of research has become a vital area for researchers interested in understanding the chemistry, biosynthetic mechanisms, and pharmacological activities of these bioactive metabolites. This book describes the basics of bioactive plant compounds, their chemical properties, and their pharmacological biotechnological properties with regard to various human diseases and applications in the drug, cosmetics and herbal industries. It offers a valuable asset for all students, educators, researchers, and healthcare experts involved in agronomy, ecology, crop science, molecular biology, stress physiology, and natural products. .

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