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BIOPROSPECTING OF PLANT BIODIVERSITY FOR INDUSTRIAL MOLECULES



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Table of Contents

[Cover](#)

[Title Page](#)

[Copyright Page](#)

[List of Contributors](#)

[Preface](#)

[About the Editors](#)

[Acknowledgments](#)

[1 An Introduction to Plant Biodiversity and Bioprospecting](#)

[1.1 Introduction](#)

[1.2 What is Bioprospecting](#)

[1.3 Significance of Plants in Bioprospecting](#)

[1.4 Pros and Cons of Bioprospecting](#)

[1.5 Recent Trends in Bioprospecting](#)

[1.6 Omics for Bioprospecting and in silico Bioprospecting](#)

[1.7 An Insight into the Book](#)

[References](#)

[2 Entomotoxic Proteins from Plant Biodiversity to Control the Crop Insect Pests](#)

[2.1 Introduction](#)

[2.2 Lectins](#)

[2.3 Proteinase Inhibitors](#)

[2.4 \$\alpha\$ -Amylase Inhibitors](#)

[2.5 Ribosome-Inactivating Proteins \(RIPs\)](#)

[2.6 Arcelins](#)

[2.7 Defensins](#)

[2.8 Cyclotides](#)

[2.9 Canatoxin-Like Proteins](#)

[2.10 Ureasases and Urease-Derived Encrypted Peptides](#)

[2.11 Chitinases](#)

[2.12 Proteases](#)

[2.13 Conclusions](#)

[References](#)

[3 Bioprospecting of Natural Compounds for Industrial and Medical Applications](#)

[3.1 Introduction](#)

[3.2 Why Bioprospecting Is Important](#)

[3.3 Major Sites for Bioprospecting](#)

[3.4 Pipeline of Bioprospecting](#)

[3.5 Biopiracy: An Unethical Bioprospecting](#)

[3.6 Bioprospecting Derived Products in Agriculture Industry](#)

[3.7 Bioprospecting Derived Products for Bioremediation](#)

[3.8 Bioprospecting for Nanoparticles Development](#)

[3.9 Bioprospecting Derived Products in Pharmaceutical Industry](#)

[3.10 Conclusion and Future Prospects](#)

[Acknowledgments](#)

[References](#)

[4 Role of Plants in Phytoremediation of Industrial Waste](#)

[4.1 Introduction](#)

[4.2 Different Toxic Materials from Industries](#)

References

5 Ecological Restoration and Plant Biodiversity

5.1 Introduction

5.2 Major Areas of Bioprospecting

5.3 Bioprospecting: Creating a Value for Biodiversity

5.4 Conservation and Ecological Restoration for Sustainable Utilization of Resources

5.5 Biodiversity Development Agreements

5.6 Conclusions

References

6 Endophyte Enzymes and Their Applications in Industries

6.1 Introduction

6.2 The Rationale for Bioprospecting Endophytes for Novel Industrial Enzymes

6.3 Endophytes as a Source of Industrial Enzymes

6.4 Overview of the Methods Used to Investigate Endophytes as Sources of Enzymes

6.5 Strategies Applied to Improve the Production of Enzymes by Endophytes

6.6 Conclusion

Acknowledgements

References

7 Resource Recovery from the Abundant Agri-biomass

7.1 Introduction

7.2 Potential of Agri-biomass to Produce Different Products

7.3 Case Studies

7.4 Conclusion and Future Perspectives

References

8 Antimicrobial Products from Plant Biodiversity

8.1 Introduction

8.2 Use of Plant Products as Antimicrobials: Historical Perspective

8.3 Major Groups of Plants-Derived Antimicrobial Compound

8.4 Mechanisms of Antimicrobial Activity

8.5 Conclusions and Future Prospects

References

9 Functional Plants as Natural Sources of Dietary Antioxidants

9.1 Introduction

9.2 Evaluation of the Antioxidant Activity

9.3 Antioxidant Activity of Functional Plants

9.4 Applications of Plant Antioxidants

9.5 Conclusions

References

10 Biodiversity and Importance of Plant Bioprospecting in Cosmetics

10.1 Biodiversity, Bioprospecting, and Cosmetics - A Harmony of Triad

10.2 The Fury of Synthetic Chemicals in Cosmetics on Health

10.3 India's Biodiversity and Its Traditional Knowledge/Medicine in Cosmetics

10.4 Use of Plant-Based Products in the Cosmetic Industry

10.5 Green Cosmetics - Significance and Current Status of the Global Market

[10.6 Ethical and Legal Implications of Bioprospecting and Cosmetics](#)

[10.7 Laws Regulating Cosmetics](#)

[10.8 Role of Biotechnology in Bioprospecting and Cosmetics](#)

[References](#)

[11 Therapeutic Lead Secondary Metabolites Production Using Plant *In Vitro* Cultures](#)

[11.1 Introduction](#)

[11.2 Secondary Metabolites and Pharmaceutical Significance](#)

[11.3 Plant *In Vitro* Cultures and Strategies for Secondary Metabolite Production](#)

[11.4 Exemplification of the Utilization of Different Types of Plant *In Vitro* Cultures for SMs Production](#)

[11.5 Conclusion](#)

[References](#)

[12 Plant Diversity and Ethnobotanical Knowledge of Spices and Condiments](#)

[12.1 Introduction](#)

[12.2 Habitat and Diversity of Major Spices and Condiments in India](#)

[12.3 Ethnobotanical Context of Spices and Condiments in India](#)

[12.4 Major Spices and Condiments in India](#)

[12.5 Importance of Indian Spices](#)

[12.6 Spice Plantation and Cultivation in India](#)

[12.7 Cultivation Technology of Caper Bud in India](#)

[12.8 Export of Indian Spices](#)

[12.9 Conservation Efforts Against Selected Uncultivated Wild Spices and Condiments](#)

[12.10 Institutions and Organization Dedicated for Research and Development in Spices and Condiments in India](#)

[12.11 Recent Researches on Spices and Condiments](#)

[12.12 Conclusion and Future Perspectives](#)

[Acknowledgments](#)

[Authors' Contribution](#)

[References](#)

[13 Plants as Source of Essential Oils and Perfumery Applications](#)

[13.1 Background](#)

[13.2 Biochemistry of Essential Oils](#)

[13.3 The Metabolism Terpenes](#)

[13.4 The Role of Essential Oils and the Specificity of Their Accumulation in Plants](#)

[13.5 Essential Oils from Plants in Perfume](#)

[13.6 Conclusions and Remarks](#)

[References](#)

[14 Bioprospection of Plants for Essential Mineral Micronutrients](#)

[14.1 Introduction](#)

[14.2 Plants as a Source of Mineral Micronutrients](#)

[14.3 Bioavailability of Micronutrients from Plants](#)

[14.4 Manipulating Plant Micronutrients](#)

[14.5 Microbes in the Biofortification of Micronutrients in Crops](#)

[14.6 Conclusions](#)

References

15 Algal Biomass

15.1 Introduction

15.2 Carbon Dioxide Capture and Sequestration

15.3 Algae in High-Value Biomolecules Production

15.4 Algae in Biofuel Production/Generation

15.5 Algae in Additional Applications

15.6 Conclusion and Future Prospects

References

16 Plant Bioprospecting for Biopesticides and Bioinsecticides

16.1 Introduction

16.2 Current Scenario in India

16.3 Plants-Based Active Compounds

16.4 Advantages and Future Prospects of Bioinsecticides

16.5 Conclusions

Acknowledgment

References

17 Plant Biomass to Bioenergy.

17.1 Introduction

17.2 Plant Biomass

17.3 Bioenergy

17.4 Biomass Conversion into Bioenergy

17.5 The Concept of Biomass Energy (Source: [27]).

17.6 Use of Biofuel in Transportation

17.7 Production of Biogas and Biomethane from Biomass

17.8 Generation of Biofuel

[17.9 Advanced Technologies in the Area of Bioenergy](#)

[17.10 Conclusion](#)

[References](#)

[18 Bioenergy Crops as an Alternate Energy Resource](#)

[18.1 Introduction](#)

[18.2 Classification of Bioenergy Crops](#)

[18.3 Characteristics of Bioenergy Crops](#)

[18.4 Genetic Improvement of Bioenergy Crops](#)

[18.5 Environmental Impacts of Bioenergy Crops](#)

[18.6 Conclusion and Future Prospect](#)

[References](#)

[19 Marine Bioprospecting](#)

[19.1 Introduction](#)

[19.2 Seaweeds as Nutraceuticals and Functional Foods](#)

[19.3 Seaweeds in the Alleviation of Lifestyle Disorders](#)

[19.4 Anti-Inflammatory Activity of Seaweeds](#)

[19.5 Seaweed Is a Source of Anticoagulant Agent](#)

[19.6 Anticancer Property of Seaweed](#)

[19.7 Seaweeds as Antiviral Drugs and Mosquitocides](#)

[19.8 Use of Seaweeds in the Cosmeceutical Industry](#)

[19.9 Use of Seaweed as Contraceptive Agents](#)

[19.10 Extraction of Active Ingredients from Seaweed](#)

[19.11 Market Potential of Seaweeds](#)

[19.12 Conclusion](#)

References

20 Bioprospection of Orchids and Appraisal of Their Therapeutic Indications

20.1 Introduction

20.2 Orchids as a Bioprospecting Resource

20.3 Orchids as Curatives in Traditional India

20.4 Therapeutics Indications of Orchids in Asian Region

20.5 Evidences of Medicinal Uses of Orchids in Ethnic African Groups

20.6 Orchids as a Source of Restoratives in Europe

20.7 Remedial Uses of Orchids in American and Australian Cultures

20.8 Scientific Appraisal of Therapeutic Indications of Orchids

20.9 Conclusions

Acknowledgments

References

Index

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List of Tables

Chapter 2

Table 2.1 List of plant lectins having insecticidal properties.

Table 2.2 List of plant protease inhibitors with insect toxic activity.

Table 2.3 Amylase inhibitors from various plants having insect toxic potentia...

[Table 2.4 List of ribosome inactivating and other related proteins with insect...](#)

[Table 2.5 Various plants and insects with insect inhibitory functions.](#)

[Table 2.6 List of other proteins with insect toxic activities.](#)

Chapter 3

[Table 3.1 List of nanoparticles producing bio-organism.](#)

[Table 3.2 List of drugs obtained from bio-organism.](#)

Chapter 4

[Table 4.1 Naturally growing plant species capable of capturing fly ash dust \[...\]](#)

Chapter 6

[Table 6.1 Selected enzymes, endophyte-producing strains and the optimal condi...](#)

[Table 6.2 Selected endophyte enzymes and their characteristics.](#)

Chapter 7

[Table 7.1 Fruits and vegetable processing wastes \[107\].](#)

[Table 7.2 Vegetables and fruit wastes containing bioactive compounds.](#)

Chapter 8

[Table 8.1 Major classes of antimicrobial compounds from plants.](#)

Chapter 9

[Table 9.1 The FRAP, TEAC, and TPC values of several plants.](#)

Chapter 10

[Table 10.1 Chemical cosmetics and their toxic effects.](#)

[Table 10.2 Popular herbs and their ingredients in natural cosmetics \[24\].](#)

[Table 10.3 Core components of plant origin used in cosmetics.](#)

[Table 10.4 Plant Bioactives and their mode of action in natural cosmetics.](#)

Chapter 11

[Table 11.1 Major classes of plant secondary metabolites \(SMs\) and biological ...](#)

[Table 11.2 Some examples of pharmaceutical lead molecules produced through pl...](#)

[Table 11.3 Few examples of production of secondary metabolites using plantin ...](#)

Chapter 12

[Table 12.1 Diversity and distribution of spices and condiments in India.](#)

[Table 12.2 Important flavor compounds in selected Indian spices and condiment...](#)

Chapter 13

[Table 13.1 Components of essential oils from some plant's species.](#)

[Table 13.2 The compound that contributes to the scent some spices plant.](#)

[Table 13.3 Provenance and some physical properties of terpenoids.](#)

[Table 13.4 Aroma/smell/odor characteristics of tobacco carotenoid derivatives...](#)

[Table 13.5 Chemical components of essential oils and aroma/smell/odor charact...](#)

Chapter 14

[Table 14.1 Recommended dietary limits and dietary micronutrient content \(per ...](#)

Chapter 15

[Table 15.1 Major high-value health biomolecules in microalgae \[6, 7\].](#)

Chapter 16

[Table 16.1 List of biopesticides from their resource plants and target pests.](#)

Chapter 17

[Table 17.1 Important biofuel crops.](#)

[Table 17.2 Next-generation biofuel crops.](#)

Chapter 18

[Table 18.1 Constituents of various types of bioenergy crops.](#)

Chapter 19

[Table 19.1 Bioactive compounds from various seaweeds and their potential acti...](#)

Chapter 20

[Table 20.1 Bioactive compounds derived from different orchid species.](#)

List of Illustrations

Chapter 4

[Figure 4.1 Strategies for enhancing the onsite remediation potential and eco...](#)

Chapter 5

[Figure 5.1 Major areas of bioprospecting.](#)

Chapter 6

[Figure 6.1 Attributes of endophytes making them suitable for enzymes biopros...](#)

Chapter 7

[Figure 7.1 Schematic illustration of different routes for utilization of agr...](#)

Chapter 12

[Figure 12.1 Selected Indian spice and condiment plants. \(a\) *Alipnia calcarat...*](#)

[Figure 12.2 Caper bud form in Tamil Nadu. \(a\) Farm field, \(b\) *Capparis spino...*](#)

Chapter 13

[Figure 13.1 Schematic representation of a biosynthesis of terpenes in plants...](#)

Chapter 14

[Figure 14.1 Different food processing techniques that influence nutrient bio...](#)

[Figure 14.2 Different approaches that are used for the biofortification of m...](#)

Chapter 15

[Figure 15.1 High-value natural products obtained from algal resources.](#)

[Figure 15.2 Different algal biomass modification pathways for biofuel produc...](#)

[Figure 15.3 Transesterification of algal fatty acid \(TGA\) to glycerol and bi...](#)

[Figure 15.4 Biochemical conversion of algal biomass for biogas production.](#)

Chapter 16

[Figure 16.1 Advantages of botanical pesticides over chemical pesticides.](#)

Chapter 18

[Figure 18.1 Types of bioenergy crops.](#)

[Figure 18.2 Impacts of bioenergy crops on environment.](#)

Chapter 20

[Figure 20.1 An outline of bioprospecting in orchids and its therapeutic appl...](#)

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Preface

Nature has the reservoir for all the desired molecules in the form of biodiversity that includes microbial, animal, and plants. Bioprospection is very well-established method for the identification and isolation of new active molecules of desired activity. Researches are being conducted to exploit the biological resource for obtaining biomolecules of pharmaceutical, bioceutical, agricultural, bioremediation, etc. significance. The exploitation of bioactive significance in the natural compounds in the biosphere is required to be intensified with systematic and sustainable approaches. The expedition and validation of the scientific parameters in the ethnic knowledge, preservation of bioresource, and biotechnological advancement in the generation of efficient biological systems, keeping in mind the approach of societal development exploitation with nature's protection, are the current demand in scientific investigations.

Bioprospection is the exploration of economic potential in the biological resource mostly in terms of nutraceutical value. In recent decades, substantial attention has been given on a variety of bioresources for bioprospecting. For example, macro- and microalgae have been demonstrated to be a biomass value of nutraceutical, pharmaceutical, food, biomedical, bioenergetic importance.

Plants are a crucial biological component of the biosphere in the earth. The plant resource has served the humankind in several ways by providing food, feed, medicine, nutraceuticals, shelter, etc. About 3.9 lakh known plant species make the animals and other organisms' life possible at the earth. Plant bioprospecting is being performed since the existence of human life on the earth. Extensive investigations have been done to explore several