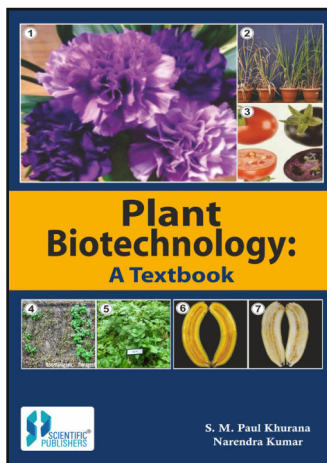


# Plant Biotechnology :

## A Textbook



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Weight : 730 Gms  
Price : ₹ 1,995.00

This Textbook deals with Biotechnological tools for plants. It is an attempt to provide the latest information in a comprehensible manner for the UG/PG students of Biotechnology, Botany, and molecular- biology/ microbiology. The book is presented as a Text Book to deal with the most recent and relevant scientific advancements in the field of Plant Biotechnology- divided into four units and thirty chapters, because of the needs of the syllabi for students of Biotechnology/Botany, dealing with Introduction to Plant Biotechnology, Plant Tissue Culture, Transgenic Plants or Genetic Modification Technology, and Industrial and Agricultural Applications as well as Annexures I and II covering practical ELISA and PCR. The chapters are written impeccably for providing up-to-date knowledge of the subject to the students. The text is presented in a manner that enhances the subjects readability and also makes it interesting. Different issues and levels of difficulty in the subject have been dealt very carefully for the target audience in mind i.e. as an effective teaching tool by compiling it in a systematic way that can be learned efficiently, including many aids like Photographs, Figures, Tables, etc to make the subject interesting and learning to be quite easy and enjoyable.

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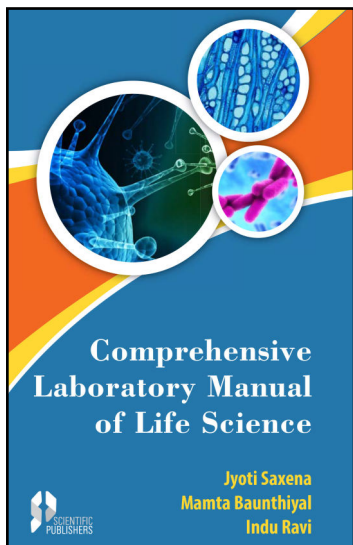
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# Comprehensive Laboratory Manual of Life Science



The present book Comprehensive Laboratory Manual of Life Science, deals with practical trends in modern biological sciences. It furnishes protocols on recent advances in biotechnological methods and aims to cover three most important aspects of this interdisciplinary stream; such as Microbiology, Biochemistry and Molecular biology. The book contains four sections: 1. Introduction: emphasizes on good laboratory practices and etiquettes for beginners; the do's and don'ts of working in a laboratory, concepts and terminology, etc. 2. Instruments: Principle and Precautions: explores commonly used equipments employed in different experiments. 3. Experiments: is further divided into three parts: Microbiology with more than 70 experiments, Biochemistry with 62 and Molecular Biology having around 32 detailed protocols, accorded to make the readers proficient in the paramount disciplines of Bio Sciences and Biotechnology. 4. Appendix: at the end, a rather comprehensive section that concludes the book. This book is designed to meet the practical requirements of undergraduate and post graduate students of Life Science, Biotechnology, Microbiology, Biochemistry and Biochemical Engineering by providing worked out solution to the most commonly practiced experiments prescribed by majority of Indian Universities. The latest technological developments in the book will be appealing to the researchers and scientists.

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Price : ₹ 550.00

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Assistant Regional Director, IGNOU Regional Centre, Jaipur

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- Introduction
- Instruments : Principle And Precautions
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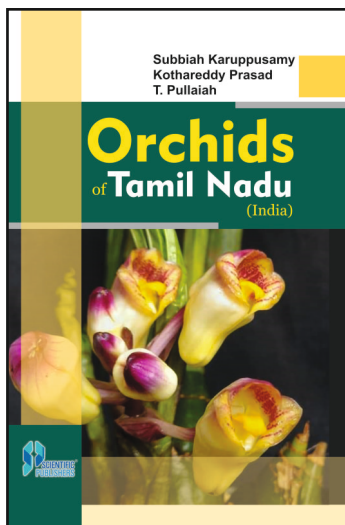
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# Orchids of Tamil Nadu (India)



The book gives detailed updated information of Orchids of Tamil Nadu in India. Brief account on the phytogeography, geology, forest types, climates of Tamil Nadu is given in the introductory chapter. An analysis of endemic orchids of Tamil Nadu has been given for easy identification of utilization and conservation measures. A bracketed key to the orchid genera and key to the species have been given for precise identification. A total of 252 taxa belonging to 73 genera of Orchidaceae have been systematically enumerated.

Under each species, citation according to latest ICN, synonymous connected to local, regional and national Floras, type information, etymology, description, flowering and fruiting season, habitat, distribution of each species in local, regional, national and global scale and specimen examined have been given. All the literature about orchids of Tamil Nadu have been given at the end. One new species *Aerides agasthiyamalaiana* has been described in this book. The importance of this book is coloured photographs of about 230 species available in the Tamil Nadu region. Endemic and threat categories also mentioned each taxa. Index to genera and species has been given at the end.

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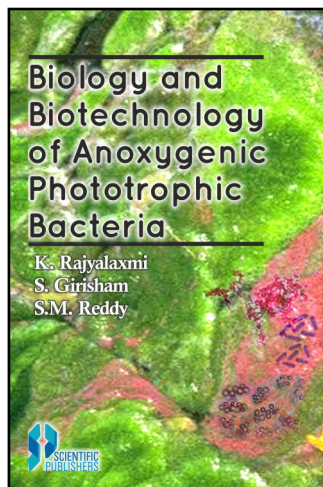
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# Biology and Biotechnology of Anoxygenic Phototrophic Bacteria



The present book deals with an unique group bacteria which occurs specialized ecological niches under harsh conditions. As a result they adapted special type of metabolism. The ecological adaptation and played by these microorganisms in the service of mankind are discussed in a precise way. It integrates knowledge of basic and applied aspects. It forms a good reading material for teaches and researchers.

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**Dr. S. Girisham**

Professor

**Dr. S.M. Reddy**

Professor Emeritus (UGC)

Department of Microbiology, Kakatiya University  
Warangal - 506009, Telangana

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## Contents:

- Introduction
- Isolation and Cultivation
- Taxonomy
- Photosynthesis
- Carbon Metabolism
- Sulfur Metabolism
- Ecology of Anoxygenic Phototrophic Bacteria
- Hydrogen - Non-Conventional energy
- Single Cell Protein
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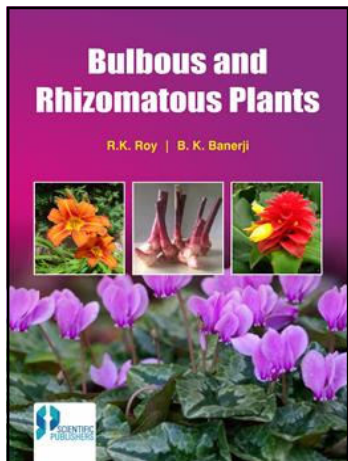
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# Bulbous and Rhizomatous Plants



The book entitled "Bulbous & Rhizomatous Plants" is a comprehensive book on Bulbous and Rhizomatous Plants. This group of plants includes an amazing collection of plants which are known for their diversity, growth habit, foliage and flower. They are extensively used for various gardening purpose as bedding and pot plants. Some of them have high commercial value as cut-flowers besides ornamental importance. This volume includes 14 leading Bulbous and Rhizomatous Plants in various chapters. Scientific and technical information have been provided with under various headings and sub-headings. Latest research updates of each crop have been provided with appropriate illustrations. Information on genus, species, varieties, agro-technology, processing, packaging have been included. The contributors are from various universities, research institutions and are well known in their specific field and having expertise on the crops.

Scientific information on these crops in the form of a book has not been published in the recent past. Therefore, the book will serve as a handbook on Bulbous and Rhizomatous plants and will be useful for the students of M.Sc. Agriculture / Horticulture / Botany; ARS candidates; Research scholars / Ph.D. students; Asst. Prof / Professors of different colleges / universities in India. Moreover, amateur and professional gardeners will also be benefitted.



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Color Pages : 8  
Weight : 532 Gms  
Price : ₹ 1,995.00



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**Dr. B.K. Banerji**

Retd. Head, Floriculture Division

*CSIR- National Botanical Research Institute, Lucknow*

## Contents:

- |              |                  |
|--------------|------------------|
| • Alpinea    | • Hemerocallis   |
| • Amaryllis  | • Lilium         |
| • Begonia    | • Lotus          |
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| • Cyclamen   | • Spider Lily    |
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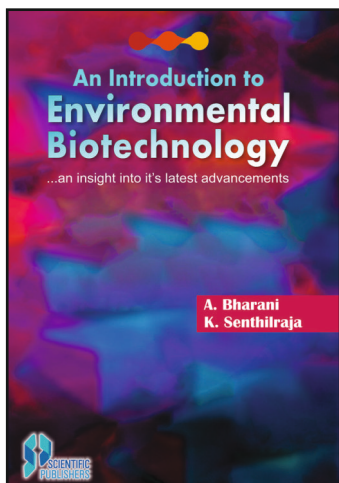
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# An Introduction to Environmental Biotechnology



Environmental biotechnology, a book is written for the benefit of students of life sciences especially who aspire for becoming a biotechnologist having an exciting future. Just the thought of having microorganisms work for you — simply by feeding them with natural substrates. Writing this book was always pondering into me as the book provides fundamental knowledge about the scopes in Environmental biotechnology dealing with the ecosystems, components of the environment, environmental pollution and their control measures. Application of biotechnological tools and methods as a solution for all the environmental problems and issues are discussed be it a microbe or a plant for remediating the contaminated ecosystem.

This work inevitably sprang out of our environmental biotechnology modules being offered for undergraduate students of all branches of life sciences. The rise of environmental studies, which must surely be amongst the most inherently applicable of applied sciences, and the growing importance of biotechnology usage in this respect, remain two of the most encouraging developments for the future of our planet. Once an expensive and largely unfamiliar option, it has now become a realistic alternative to many established approaches for manufacturing, land remediation, pollution control and waste management. Against a background of burgeoning disposal costs and ever more stringent legislation and liabilities, the application of biologically engineered solutions seems certain to continue its growth.

**STUDENT EDITION - COMING SOON**

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Size (Inch)	: 6.08 x 10.00 x 1.00
Weight	: 1100 Gms
Book Type	: Text Book
Colour Page	: 16
Price	: ₹1,975.00

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**Dr. K. Senthilraja**, Research Associate  
Directorate of Crop Management,  
Tamil Nadu Agricultural University (T.N.)

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## Contents:

- Introduction to Environment
- Biotechnology Tools for Pollution Management
- Bioscavenging and Phytoremediation
- Biotechnological methods for Environmental Management
- Green Technologies for Environmental Remediation



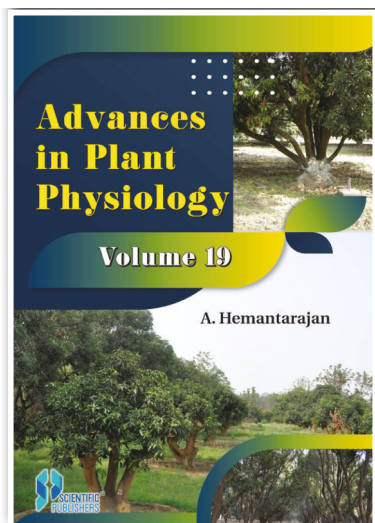
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# Advances in Plant Physiology (Vol 19)



The strengthening of Volume 19 of the Advances in Plant Physiology series has been entirely due to commendable contributions by scientists of eminence in unambiguous fields. The endeavor of publishing the International Treatise Series on Plant Physiology has to really sort out the meagerness of significant researches, which are earnestly required for rising productivity, prosperity and sustainability of agriculture through notably emerging technologies for reformation in metabolic boundaries necessitates mainly for abiotic stress factors.

The Volume 19 has been broadly subdivided into six pertinent sections including special supplements that precisely begins with considerable pieces of information on recent developments in adaptation of photosynthesis to variable light conditions; Melatonin: Role in plant growth and development; Proteomics as a tool for assessment of metal toxicity in crop plants, Impact of engineered nano particles (ENPs) on plant development and growth, Crop adaptation under climate change and so on. The special supplements section consist of 2 reviews dealing with how photosynthesis process changes with change in light condition and role of melatonin in plant growth and development which is a promising molecule for management of abiotic stress. Section I consists of 2 chapters focusing upon the application of new technologies in plant science research.

Chief Editor

**Dr. A. Hemantaranjan**

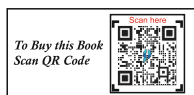
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## Contents:

- Adaptation of Photosynthesis to Variable Light Conditions
- Melatonin: Role in Plant Growth and Development
- Proteomics as A Tool for Assessment of Metal Toxicity in Crop Plants
- Molecular, Physiological and Biochemical Responses of Plants to Abiotic Stress
- MicroRNAs And Drought Stress Signaling
- Physiological and Molecular aspects of Brassinosteroids under Abiotic Stress
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- Plant Heat Shock Proteins Comeback to Heat Stress: An Overview
- Abiotic Stress Tolerance in Legumes: Agronomic Management Approaches
- Various Approaches for Mitigation of Abiotic Stress for Higher Crop Productivity
- Phyllochron: Acclimatize to Low Temperature in Cereals
- Plant Growth Promoting Rhizobacteria (PGPR): A Green Strategy for Agriculture Sustainability in Salinity Stress
- Crop Adaptation under Climate Change
- Climate Shift and its Ecological Implications
- Boron Uptake, Transport and Toxicity-Tolerance in Plants

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