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## ADVANCES IN COTTON SCIENCE

*Botany, Production, and Crop Improvement*

Ratikanta Maiti, Autonomous University of Nuevo León, Mexico

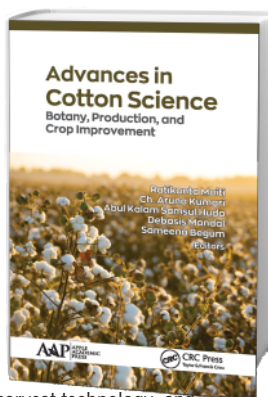
Ch. Aruna Kumari, Professor Jaya Shankar Telangana State Agricultural University, India With Abul Kalam Samsul Huda, Debashis Mandal, and Sameena Begum

A rich resource on the cultivation and production of cotton. It provides an overview of its origin and evolution and its physiological basis and characterization, and goes on to discuss methods of cultivation, biotic stresses, harvesting and postharvest technology, and new research on breeding and biotechnology.

364 pages with index. 6 color and 19 b/w illustrations.

HB ISBN: 978-1-77188-819-6 / eBook ISBN: 9780429283987

\$169.95 US / £131.00. April 2020.



## ADVANCES IN SORGHUM SCIENCE

*Botany, Production, and Crop Improvement*

Ratikanta Maiti, and

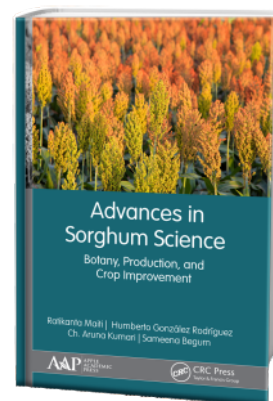
Humberto González Rodríguez, Universidad Autonoma de Nuevo Leon, Mexico

With Humberto González Rodríguez, Aruna Kumari, and Sameena Begum

Provides an easy-to-read and comprehensive treatment of the sorghum crop, providing detailed information from several disciplines. It covers the various aspects of the sorghum crop, from its origin, to its domestication, and going on to biotechnology of the crop. It describes sorghum production, ideotypes, botany, physiology, abiotic and biotic factors affecting crop productivity, methods of cultivation, postharvest management, grain quality analysis for food processing, improvement of sorghum crop, and research advancements in breeding and biotechnology.

290 pages with index. 8 color illustrations. HB ISBN: 978-1-77188-967-4

eBook ISBN: 9781003127628, \$149.95 US / £116.00. July 2021



## ADVANCES IN MAIZE SCIENCE

*Botany, Production, and Crop Improvement*

Ratikanta Maiti, and Humberto González Rodríguez, Autonomous University of Nuevo León, Mexico

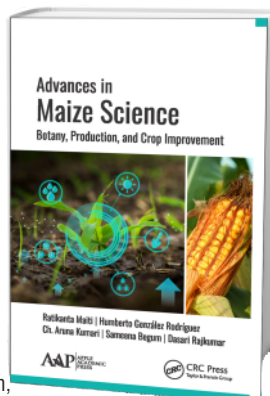
With Ch. Aruna Kumari, PhD, Sameena Begum, Dasari Rajkumar

Offers a multi-pronged perspective on maize science, with important recent research advances from several disciplines. It covers the background of maize, its origin and domestication, ideotypes, botany, taxonomy, physiology of crop growth, methods of cultivation, production, nutritional functions, biotic and abiotic stress impacts, postharvest management and technology, maize grain quality, and advances in breeding and biotechnology, filling a gap in the literature of maize.

292 pages with index. 15 color and 5 b/w illustrations.

HB ISBN: 978-1-77188-952-0, eBook ISBN: 9781003104995

\$189.95 US / £147.00. September 2021



## AERIAL ROBOTICS IN AGRICULTURE

*Parafoils, Blimps, Aerostats, and Kites*

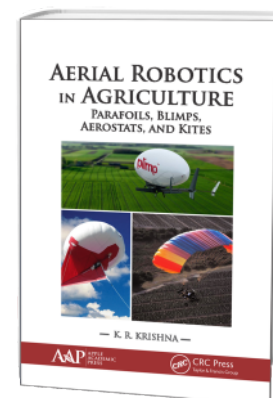
K. R. Krishna, University of Florida

A plethora of information on aerial vehicles and their possible roles in revolutionizing agricultural procedures through spectral analysis of terrains, soils, crops, water resources, diseases, floods, drought, and farm activities. The volume focuses on aerial vehicles such as the parafoils, blimps, aerostats, and kites and how they are being evaluated for use in experimental farms and fields.

414 pages with index. 61 b/w illustrations.

HB ISBN: 978-1-77188-926-1, eBook ISBN: 9781003054863,

\$189.95 US / £147.00. April 2021



## ADVANCES IN RICE SCIENCE

*Botany, Production, and Crop Improvement*

Ratikanta Maiti, Autonomous University of Nuevo León, Mexico

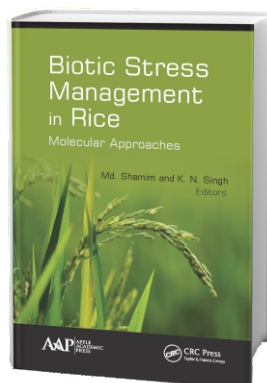
Narayana Chandra Sarkar, Humberto González Rodríguez, Aruna Kumari and Sameena Begum

A concise overview of rice, covering the background and importance of rice; origin, evolution, and domestication of rice; and important recent research advances on many aspects of rice science and production.

The authors look at advances in rice ideotypes, abiotic stress management techniques, biotic stress affecting crop productivity, new methods and technology for cultivation, and new methods and techniques in rice grain quality analysis and processing. It also describes new rice varieties, new hybrid rice technology, and new breeding methods for rice.

364 pages with index. 37 color illustrations. HB ISBN: 978-1-77188-854-7.

eBook ISBN: 9780429325113, \$169.95 US / £131.00. November 2020



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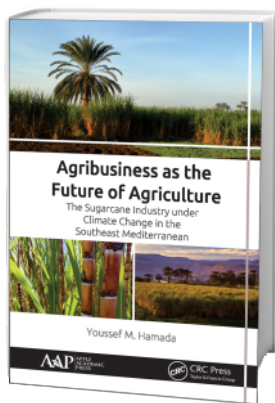
## AGRIBUSINESS AS THE FUTURE OF AGRICULTURE

*The Sugarcane Industry under Climate Change in the Southeast Mediterranean*

Youssef M. Hamada, Agricultural Research Center, Egypt

Reviews the challenges of agribusiness from climate change in the Southeast Mediterranean sea. The author focuses on sugarcane cultivation in Egypt to illustrate the impact of climate change on agribusiness. It examines the causes and effects of climate change on agribusiness in the Southeast Mediterranean region, such as its effect on prosperity and net farm incomes crop yields. It considers how to promote agribusiness development in the area and the potential to alleviate poverty in rural areas.

326 pages with index. 19 color and 25 b/w illustrations.  
HB ISBN: 978-1-77188-842-4, eBook ISBN: 9780429321702  
\$169.95 US / £131.00. September 2020



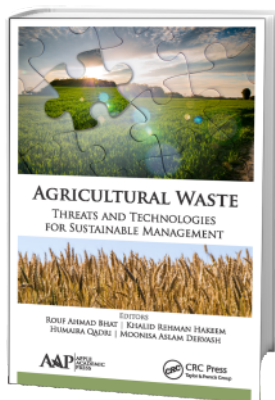
## AGRICULTURAL WASTE

*Threats and Technologies for Sustainable Management*

Editors: Rouf Ahmad Bhat, Cluster University Srinagar, Jammu and Kashmir, India  
Khalid Rehman Hakeem, King Abdulaziz University, Saudi Arabia  
With Humaira Qadri, and Moonisa Aslam Dervash

Focuses on tackling the harmful impact of agricultural waste with the use of sustainable practices, bio-techniques, and new technologies that either make use of the waste as a raw material or convert the waste into a useful resource that can help achieve environmental sustainability. It investigates the sources and impacts of agri-waste on the environment and goes on to offer effective techniques, processes, and sustainable practices that can be implemented for effective agricultural waste management.

382 pages with index. 16 color and 9 b/w illustrations.  
HB ISBN: 978-1-77188-963-6, eBook ISBN: 9781003105046  
\$179.95 US / £139.00. July 2021



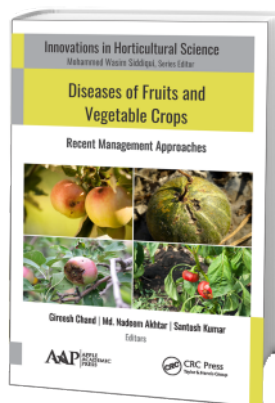
## DISEASES OF FRUITS AND VEGETABLE CROPS

*Recent Management Approaches*

Editors: Gireesh Chand, PhD, Md. Nadeem Akhtar, PhD, Bihar Agricultural University, India, with Santosh Kumar

Covers certain basic aspects of knowledge on diagnostic symptoms, modes of perpetuation and dissemination of pathogens, favorable conditions for disease development, and the latest management strategies for disease prevention and mitigation in vegetable crops, fruit crops, and plantation crops. It covers many vegetable and fruit crops, including pineapples, grapes, apples, guava, litchi, potatoes, peas, beans, ginger and turmeric, and many more. Each chapter reviews the specific diseases relevant to the crop and their management and includes recent research findings.

548 pages with index. 48 b/w illustrations. HB ISBN: 978-1-77188-836-3  
eBook ISBN: 978042932218, \$169.95 US / £131.00. September 2020



## DISEASES OF FIELD CROPS

**Diagnosis and Management, 2-Volume Set:**

*Volume 1: Cereals, Small Millets, and Fiber Crops*  
*Volume 2: Pulses, Oil Seeds, Narcotics, and Sugar Crops*

Editors: J. N. Srivastava, Bihar Agricultural University, India  
A. K. Singh, University of Agricultural Sciences and Technology, India

This 2-volume set helps to fill the need for research on plant diseases, their effects, how they spread, and effective management measures to mitigate their harmful effects. It showcases recent advances in molecular plant pathology and discuss appropriate diagnostic techniques for identification of causal agents and diseases, providing the information necessary to establish management strategies. The chapters in these two volumes include detailed description of symptoms, causal organisms, disease cycles, epidemiology, and management techniques of economically important diseases. The volumes explore existing strategies and offer new methods that can be used in an integrated manner and with a comprehensive approach for the management of major diseases of the field crops. Also taken into consideration is the impact of global climate change on the spread and severity of plant diseases.

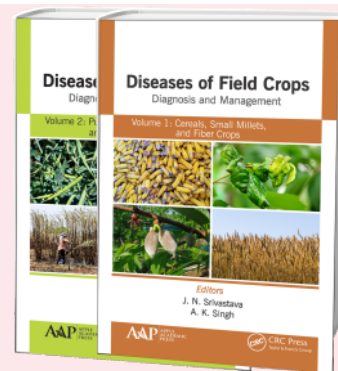
**2-volume set:**  
880 pages with index. 22 color and 133 b/w illustrations.  
HB ISBN: 978-1-77188-841-7 eBook ISBN: 9780429321771  
\$339.95 US / £262.00. October 2020

**Volume 1: Cereals, Small Millets, and Fiber Crops**

440 pages with index. 13 color and 90 b/w illustrations.  
HB ISBN: 978-1-77188-839-4, 9780429321849  
\$169.95 US / £131.00. October 2020

**Volume 2: Pulses, Oil Seeds, Narcotics, and Sugar Crops**

400 pages with index. 14 color and 48 b/w illustrations.  
HB ISBN: 978-1-77188-840-0, eBook ISBN: 9780429321962  
\$169.95 US / £131.00. October 2020



## FERTIGATION TECHNOLOGIES FOR MICRO IRRIGATED CROPS

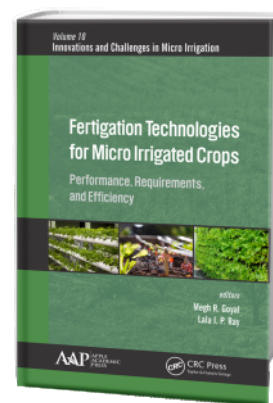
*Performance, Requirements, and Efficiency*

Editors: Megh R. Goyal, University of Puerto Rico

Lala I. P. Ray, Central Agricultural University—Imphal, India

Addresses the global water crisis by presenting new ways to use irrigation water judiciously through innovative fertigation management. It looks at the research and review works done throughout the world on micro irrigation and the techno-economic feasibility of various fertigation irrigation water management systems. Taking a multidisciplinary perspective, the chapters look at using fertigation to increase the effectiveness of irrigation systems, crop performance evaluation of various crops under fertigation and irrigation methods, estimating levels of crop requirements, scheduling of fertigation and irrigation, new fertigation equipment and technology, cost components of the various irrigation and fertigation systems

340 pages with index. 8 color and 130 b/w illustrations.  
HB ISBN: 978-1-77188-943-8, eBook ISBN: 9781003084136  
\$189.95 US / £147.00. June 2021





## DISEASES OF HORTICULTURAL CROPS

Diagnosis and Management, 4-volume set:

**Volume 1: Fruit Crops**

**Volume 2: Vegetable Crops**

**Volume 3: Ornamental and Spice Crops**

**Volume 4: Important Plantation Crops, Medicinal Crops, and Mushrooms**

Editors: J. N. Srivastava, Bihar Agricultural University, India  
A. K. Singh, Sher-e-Kashmir University of Agricultural Sciences and  
Technology, India

The volumes provide an abundance of information for understanding and managing plant diseases that cause serious threats to the successful cultivation of horticultural crops resulting in huge losses in their yields, with emphasis on diagnostic techniques and effective management solutions to the problems of field crop plants caused by phytopathogens. It provides the information on the diagnostic tools necessary and management techniques for the various crop types. The chapters cover key diseases, typical symptoms, and management strategies. The volumes also include photographs that show symptoms of important diseases, which are helpful in disease diagnosis.

### 4-volume set:

Approx. 1659 pages with index. 38 color and 266 b/w illustrations.

HB ISBN: 978-1-77188-988-9, eBook ISBN: 9781003160519

\$700.00. US, £539, November 2021

### Volume 1: Fruit Crops

Approx. 442 pages with index. 10 color and 46 b/w illustrations.

HB ISBN: 978-1-77188-989-6, eBook ISBN: 9781003160397

\$179.95 US / £139.00. November 2021

### Volume 2: Vegetable Crops

Approx. 562 pages with index. 8 color and 189 b/w illustrations.

HB ISBN: 978-1-77188-990-2, eBook ISBN: 9781003160427

\$179.95 US / £139.00. November 2021

### Volume 3: Ornamental Plants and Spice Crops

Approx. 341 pages with index. 10 color and 4 b/w illustrations.

HB ISBN: 978-1-77188-991-9, eBook ISBN: 9781003160465

\$179.95 US / £139.00. November 2021

### Volume 4: Important Plantation Crops, Medicinal Crops, and Mushrooms

Approx. 314 pages with index. 10 color and 27 b/w illustrations.

HB ISBN: 978-1-77188-992-6, eBook ISBN: 9781003160472

\$179.95 US / £139.00. April 2022

## FIELD PRACTICES FOR WASTEWATER USE IN AGRICULTURE

*Future Trends and Use of Biological Systems*

Editors: Vinod K. Tripathi, Banaras Hindu University, India

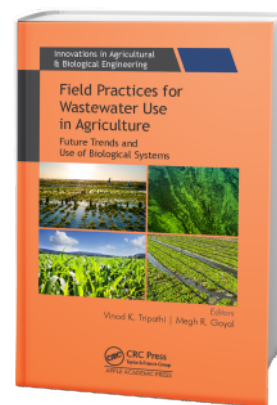
Megh R. Goyal, University of Puerto Rico

Discusses the growing importance of wastewater application in the field of agriculture. Addressing the tremendous need for the irrigation sector to reduce the demand for freshwater in agriculture, this volume looks at wastewater as a source for agricultural irrigation. The volume is divided into four sections: current and emerging issues in wastewater use in agriculture, wastewater management with biological systems, effective field practices for wastewater use, and case studies that provide information on scientific analytical studies on the environment under the influence of wastewater quality from different pollution sources.

368 pages with index. 36 color and 34 b/w illustrations.

HB ISBN: 978-1-77188-908-7, eBook ISBN: 9781003034506

\$179.95 US / £139.00. March 2021



## INTERNET OF THINGS FOR AGRICULTURE 4.0

*Impact and Challenges*

Editors: Rajesh Singh, and Amit Kumar Thakur, PhD, Lovely Professional University, India  
with Anita Gehlot, and Ajay Kumar Kaviti

An insightful look at the varied and exciting uses and applications of Wi-Fi and the Internet of Things in agriculture. With internet-enabled communications becoming more widely available, farms and agricultural establishments can take advantage of these new technologies for a wide range of farm operations, such as crop management, farm vehicle tracking, livestock monitoring, storage monitoring, and more. The collected data from these devices can be stored in the cloud system or server and accessed by the farmers via the internet or mobile phones. This book shows the many benefits to farmers from applying IoT, including better utilizing information for monitoring crops, optimizing water use, planning effective fertilization strategies, and saving time and reducing the operation expenses.

296 pages with index. 12 color and 125 b/w illustrations.

HB ISBN: 978-1-77463-002-0. eBook ISBN: 9781003161097,

\$169.95 US / £131.00.

February 2022



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## INNOVATIVE APPROACHES IN DIAGNOSIS AND MANAGEMENT OF CROP DISEASES, 3-volume set:

**Volume 1: The Mollicutes**

**Volume 2: Field and Horticultural Crops**

**Volume 3: Nanomolecules and Biocontrol Agents**

Editors: R. K. Singh, and Gopala, College of Agriculture, India

Provides an abundance of new research and information on major diseases of various crops along with new techniques and technology for the detection of plant pathogens along with appropriate management strategies. Divided into three volumes and with chapters written by renowned and expert scientists working in different areas of plant pathology, the volumes cover important diseases of crops, incited by bacteria, fungi, viruses, viroids, phytoplasma, and nematodes. They address these disease challenges to commercial field and horticultural crops and their management.

**3-volume set:**

1174 pages with index. 42 color and 5 b/w illustrations. illustrations. HB ISBN: -027-3, eBook ISBN: 9781003187875, \$500.00. US, £385.00. September 2021

**Volume 1: The Mollicutes**

304 pages with index. 7 color and 2 b/w illustrations. HB ISBN: -024-2 eBook ISBN: 9781003187608, \$169.95 US / £131.00. September 2021

**Volume 2: Field and Horticultural Crops**

476 pages with index. 18 color illustrations. HB ISBN: -025-9 eBook ISBN: 9781003187837, \$169.95 US / £131.00. September 2021

**Volume 3: Nanomolecules and Biocontrol Agents**

394 pages with index. 17 color and 3 b/w illustrations. HB ISBN: -026-6, eBook ISBN: 9781003187844 \$169.95 US / £131.00. September 2021

## SENSOR-BASED QUALITY ASSESSMENT SYSTEMS FOR FRUITS AND VEGETABLES

Editors: Bambang Kuswandi, PhD, University of Jember, Indonesia  
Mohammed Wasim Siddiqui, PhD, Bihar Agricultural University, Sabour, India

Provides an abundance of valuable information on different sensing techniques for fruits and vegetables. It covers emerging technologies, such as NMR, MRI, wireless sensor networks (WSN, and radio-frequency identification (RFID) and their potential for industrial applications. It gives an inclusive review of the developments of sensors for quality analysis and inspection of fresh fruits and vegetables; covers advanced sensing technologies, including computer vision, spectroscopy, X-rays, magnetic resonance, mechanical contact, wireless sensor networks, and radio-frequency identification sensors; reviews the significant progress in the sensor development of noninvasive techniques for quality assessment of fruits and vegetables.

324pp pages with index. 15 color and 28 b/w illustrations. HB ISBN: 978-1-77188-935-3, eBook ISBN: 9781003084174 \$179.95 US / £139.00. December 2020

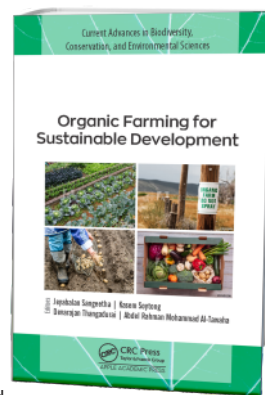
## ORGANIC FARMING FOR SUSTAINABLE DEVELOPMENT

Editors: Jeyabalan Sangeetha, Central University of Kerala, South India

Kasem Soyong, King Mongkut's Institute of Technology Ladkrabang, Thailand  
with Devarajan Thangadurai and Abdel Rahman Mohammad Al-Tawaha

Focuses on sustainable development in farming, primarily detailing the application of different natural resources as manure for organic farming. The authors discuss efficient and cost-effective uses of natural and available resources to produce healthy food while at the same time helping to conserve the environment.

301 pages with index. 7 color and 35 b/w illustrations. HB ISBN: 978-1-77491-020-7/ eBook ISBN: 9781003284055 \$169.95 US / £131.00. August 2022.



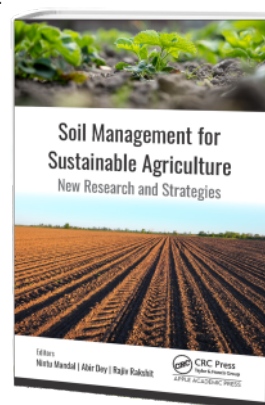
## SOIL MANAGEMENT FOR SUSTAINABLE AGRICULTURE

*New Research and Strategies*

Editors: Nintu Mandal, Bihar Agricultural University, India  
Abir Dey, ICAR-IARI, India  
with Rajiv Rakshit

Explores soil management techniques and the latest improvements in soil management. Taking a sustainable approach, the volume begins with an overview of the elementary concepts of soil management and then delves into new research and novel soil management tools and techniques. Covers how clays as a critical component in sustainable agriculture, potential utilization of microbes to mitigate crop stress, resource conservation technologies and prospective carbon management strategies, use of smart tools for monitoring soils, nutrient management approaches, nanotechnological interventions for soil management, techniques for the remediation of soils contaminated by metals and pesticides.

570 pages with index. 17 color and 55 b/w illustrations. HB ISBN: 978-1-77463-023-5 / eBook ISBN: 9781003184881 \$189.95 US / £147.00. July 2022.



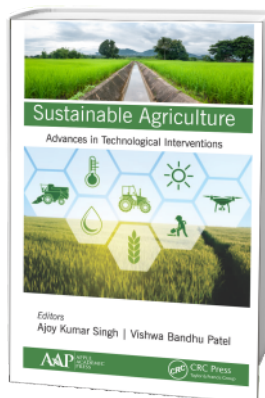
## SUSTAINABLE AGRICULTURE

*Advances in Technological Interventions*

Editors: Ajoy Kumar Singh, Bihar Agricultural University, India  
Vishwa Bandhu Patel, Indian Council of Agricultural Research–Indian Agricultural Research Institute

Looks at the evolution and challenges of sustainable agriculture and the sustainable management of agricultural crops, focusing on eco-friendly approaches, such as the utilization of waste materials. It discusses the important ideas, practices, and policies that are essential to an effective sustainable agriculture strategy. The book features 25 chapters written by experts in related fields, including crop improvement, natural resource management, crop protection, social sciences, and product development.

580 pages with index. 9 color and 72 b/w illustrations. HB ISBN: 978-1-77188-853-0 9780429325830, \$189.95 US / £147.00. September 2020



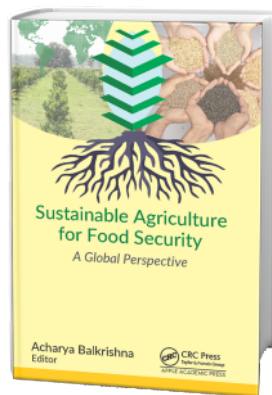
## SUSTAINABLE AGRICULTURE FOR FOOD SECURITY

### *A Global Perspective*

Editor: Acharya Balkrishna,  
Patanjali University, India

Takes an analytical approach to issues related to current agricultural practices. It looks at global geographical data and key statistical reports to aid readers in comparing, understanding, and making agricultural decisions. Each chapter deals with a specific problem and its solutions, keeping in mind the context of geographical variations. It provides a historical overview of the socioeconomic importance of agriculture around the world along with discussion on threats and opportunities in the agricultural sector. It goes on to explore the importance of water sources for agriculture, including rain-fed agriculture practices, water harvesting techniques, sustainable irrigation practices, and irrigation water management. It examines postharvest management practices used in different geographical areas along with analysis on the role of technology and obstacles in implementation. It also outlines the situational analysis of food adulteration as well as norms and regulations of food security at the international level. Lastly, the concept of biofortification is explained along with methods and strategies of biofortified food production. The impact of biofortification over socioeconomic development of a specific country is also analyzed.

406 pages with index. 65 b/w illustrations. HB ISBN: -756-2  
eBook ISBN: 9781003242543, \$169.95 £131.00. October 2021



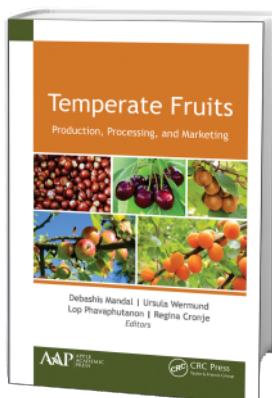
## TEMPERATE FRUITS

### *Production, Processing, and Marketing*

Editors: Debashis Mandal, Mizoram University,  
Aizawl, India  
Ursula Wermund, Greenyard Fresh Trade  
International, Germany  
with Lop Phavaphutanon, Regina Cronje

Presents the latest pomological research on the production, postharvest handling, processing and storage, and information on marketing for a selection of temperate fruits. These include apple, pear, quince, peach, plum, sweet cherry, kiwifruit, strawberry, mulberry, and chestnut. It provides the latest information on the effect of climate change on fruit production, organic fruit growing and advanced fruit breeding, the nutraceutical value and bioactive compounds in fruits and their role in human health, and new and advanced methods of fruit production. Topics include microirrigation, sustainable nutrient management, crop protection and plant health management, and farm mechanization.

594 pages with index. 9 color and 81 b/w illustrations.  
HB ISBN: 978-1-77188-919-3, eBook ISBN: 9781003045861  
\$189.95 US / £147.00. March 2021



## FORTHCOMING IN 2022

### **Biocontrol Systems and Plant Physiology in Modern Agriculture: Processes, Strategies, Innovations**

Editors: Romeo Rojas, Guillermo Cristian Guadalupe Martínez Ávila, Juan Antonio Vidales Contreras, and Cristóbal N. Aguilar  
Approx. 388 pages with index. 12 color and 21 b/w illustrations  
HB ISBN: 978-1-77463-978-8 / eBook ISBN: 9781003277118  
\$179.95 US / £139.00. Forthcoming May 2022

### **Bioremediation and Phytoremediation Technologies in Sustainable Soil Management, 4-volume set:**

*Volume 1: Fundamental Aspects and Contaminated Sites*

*Volume 2: Microbial Approaches and Recent Trends*

*Volume 3: Inventive Techniques, Research Methods, and Case Studies*

*Volume 4: Degradation of Pesticides and Polychlorinated Biphenyls*

Editors: Junaid Ahmad Malik, Megh R. Goyal, and Khursheed Ahmad Wani Approx. 1670 pages with index. 44 color and 90 b/w illustrations  
HB ISBN: 978-1-77463-720-3 / eBook ISBN: 9781003281337  
\$650.00 US / £500.00 UK. Forthcoming July 2022

### **Diverse Applications of Nanotechnology in the Biological Sciences: An Essential Tool in Agri-Business and Health Care Systems**

Editors: Khalid Rehman Hakeem, Majid Kamli, Jamal Sabir, and Hesham F. Alharby  
Approx. 422 pages with index. 13 color and 5 b/w illustrations  
HB ISBN: 978-1-77463-840-8 / eBook ISBN: 9781003277255  
\$169.95 US / £131.00 Forthcoming July 2022

### **Integrated Pest Management in Diverse Cropping Systems**

Editor: Devendra Pal Singh  
Approx. 644 pages with index. 15 color and 81 b/w illustrations  
HB ISBN: 978-1-77491-116-7. \$199.95 US / £154.00. Forthcoming September 2022

### **Integrated Waste Management Approaches for Food and Agricultural Byproducts**

Editors: Tawheed Amin, Omar Bashir, Shakeel Ahmad Bhat, and Muneeb Ahmad Malik  
Approx. 237 pages with index. 9 color and 16 b/w illustrations  
HB ISBN: 978-1-77491-016-0 / eBook ISBN: 9781003282327  
\$159.95 US / £124.00. Forthcoming June 2022

### **Nanotechnology Applications in Agricultural and Bioprocess Engineering: Farm to Table**

Editors: Megh R. Goyal, Santosh K. Mishra, and Lohith Kumar Dasarahalli-Huligowda  
308 pages with index. 11 color and 13 b/w illustrations  
HB ISBN: 978-1-77463-750-0 / eBook ISBN: 9781003277439  
\$159.95 US / £124.00. Forthcoming July 2022

### **Organic Crop Production Management**

Editors: D. P. Singh, H. G. Prakash, M. Swapna, and S. Solomon  
Approx. 431 pages with index. 15 color and 59 b/w illustrations  
HB ISBN: 978-1-77491-058-0 / eBook ISBN: 9781003283560  
\$169.95 US / £131.00. Forthcoming August 2022

### **Organic Farming for Sustainable Development**

Editors: Jeyabalan Sangeetha, Kasem Soyong, Devarajan Thangadurai, and Abdel Rahman Mohammad Al-Tawaha  
Approx. 301 pages with index. 7 color and 35 b/w illustrations  
HB ISBN: 978-1-77491-020-7 / eBook ISBN: 9781003284055  
\$169.95 US / £131.00. Forthcoming June 2022

### **Quality Control in Fruit and Vegetable Processing: Methods and Strategies**

Editors: Megh R. Goyal, and Faizan Ahmad  
Approx. 408 pages with index. 13 color and 3 b/w illustrations  
HB ISBN: 978-1-77491-118-1. \$169.95 US / £131.00 Forthcoming September 2022

### **Tropical and Subtropical Fruit Crops: Production, Processing, and Marketing**

Editors: Debashis Mandal, Ursula Wermund, Lop Phavaphutanon, and Regina Cronje  
Approx. 643 pages with index. 18 color and 83 b/w illustrations  
HB ISBN: 978-1-77491-110-5. \$219.95 US / £170.00 Forthcoming September 2022

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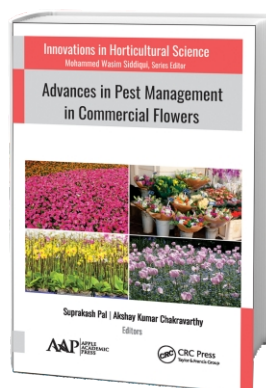
# PLANT SCIENCE & BOTANY

## ADVANCES IN PEST MANAGEMENT IN COMMERCIAL FLOWERS

Editors: Suprakash Pal, North Bengal Agriculture University, India  
Akshay Kumar Chakravarty, Indian Institute of Horticultural Research, India

An informative overview of worldwide pests of important commercial flowers. It explores the role of climate change and the synthetic chemicals and their possible harmful effects on the environment. It goes on to offer novel research on management of pest problems in commercial flower production, discussing eco-friendly techniques, the use of new and promising chemicals, the employment of indigenous technical knowledge, and more.

304 pages with index. 8 color and 51 b/w illustrations.  
HB ISBN: 978-1-77188-817-2 / eBook ISBN: 9780429284120  
\$179.95 US / £139.00. February 2020.



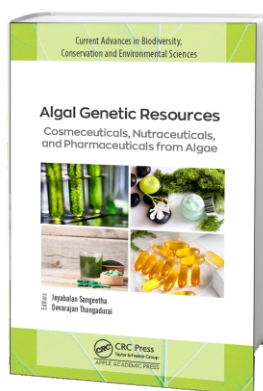
## ALGAL GENETIC RESOURCES

### *Cosmeceuticals, Nutraceuticals, and Pharmaceuticals from Algae*

Editors: Jayabalan Sangeetha, Central University of Kerala, India  
Devarajan Thangadurai, Karnatak University, India

Focuses on recent and advanced techniques and technologies in algal cultivation and extraction for its application. The chapters discuss the biological importance, properties, and uses of algal metabolites and microalgae-based compounds in drug development, in food nutrition enhancement, and in the development of cosmetics with medicinal properties.

291 pages with index. 13 color and 2 b/w illustrations.  
HB ISBN: 978-1-77463-748-7 / eBook ISBN: 9781003277095  
\$159.95 US / £124.00. August 2022.



## BIOACTIVE COMPOUNDS FROM PLANT ORIGIN

### *Extraction, Applications, and Potential Health Benefits*

Editors: Hafiz Ansar Rasul Suleria, The University of Melbourne, Australia  
Colin Barrow, Deakin University, Australia

Explores the importance of phytochemicals from plants in therapeutics and human health, focusing on the extraction of bioactive compounds and their applications in human health. It describes recent advances as enzyme-assisted, microwave-assisted, ultrasound-assisted, pressurized liquid extraction, and supercritical extraction techniques. It also covers the roles of different bioactive compounds and their health-promoting potential for lifestyle diseases.

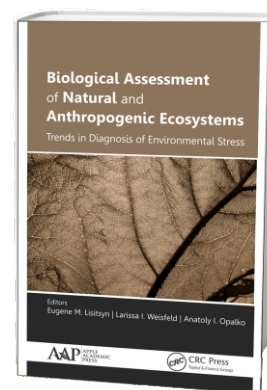
336 pages with index. 10 color and 30 b/w illustrations.  
HB ISBN: 978-1-77188-786-1 / eBook ISBN: 9780429029288  
\$159.95 US / £124.00. October 2019.

## BIOLOGICAL ASSESSMENT OF NATURAL AND ANTHROPOGENIC ECOSYSTEMS

### *Trends in Diagnosis of Environmental Stress*

Editors: Eugene M. Lisitsyn and Larissa I. Weisfeld, Russian Academy of Sciences, Russia  
With Anatoly I. Opalko

Looks at the application of certain criteria (biochemical, morphological, anatomical, and genetic) and discusses methodological approaches to indicate environmental problems. The book explores new scientific research and practical applications of bioindicators for both nature protection and scientific research purposes. 306 pages with index. 6 color and 26 b/w illustrations.  
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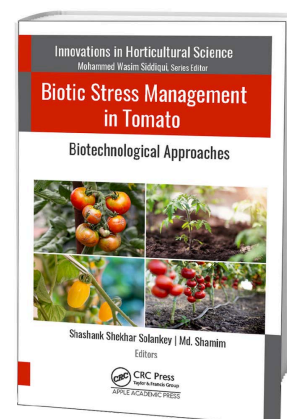
## BIOTIC STRESS MANAGEMENT IN TOMATO

### *Biotechnological Approaches*

Editors: Shashank Shekhar Solankey, Kishanganj under Bihar Agricultural University, India  
Md. Shamim, Bihar Agricultural University, India

Highlights biotechnological tools and their utilization for biotic stress management in the tomato plant, covering the major diseases of tomato along with practical biotic stress management strategies through biotechnological and molecular approaches. The focus is on molecular tools that can be used to prevent or mitigate damage.

322 pages with index. 9 color and 12 b/w illustrations.  
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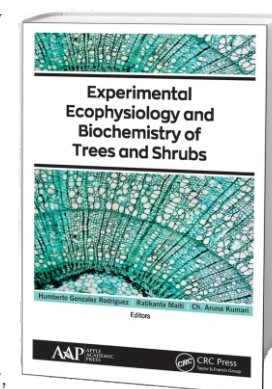


## EXPERIMENTAL ECOPHYSIOLOGY AND BIOCHEMISTRY OF TREES AND SHRUBS

Humberto González Rodríguez and Ratikanta Maiti, Autonomous University of Nuevo Leon, Mexico  
With Ch. Aruna Kumari

Deals with various aspects of experimental ecophysiology of trees and shrubs along with recent research results of studies on plant pigment, epicuticular wax, leaf nutrients, carbon fixation, all supported by literature. It also describes laboratory techniques such as diffusion, imbibition, calorimetry, atomic absorption, mineral nutrition, nutrition analysis of forage, litterfall chemistry, nutrient cycle, etc.

344 pages with index. 13 b/w illustrations.  
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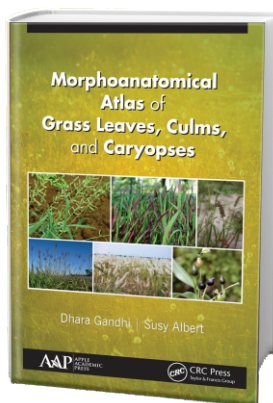


## MORPHOANATOMICAL ATLAS OF GRASS LEAVES, CULMS, AND CARYOPSES

Dhara Gandhi and Susy Albert, Maharaja Sayajirao University of Baroda, India

Features the studied anatomical details of different parts of 100 wild grass species and provides a comprehensive overview of existing knowledge. Each of the three sections of the volume (leaves of grass, culms, and caryopses) discusses and illustrates the diagnostic histological features, along with statistical analyses on the quantitative and qualitative data.

656 pages with index. 6 color and 231 b/w illustrations.  
HB ISBN: 978-1-77188-848-6 / eBook ISBN: 9780429328084  
\$199.95 US / £154.00. November 2020.



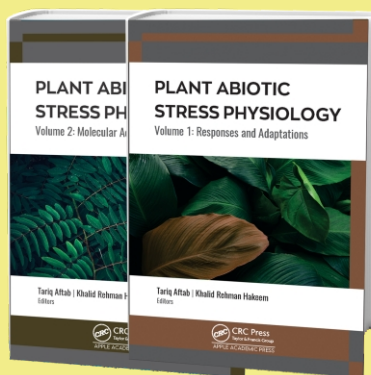
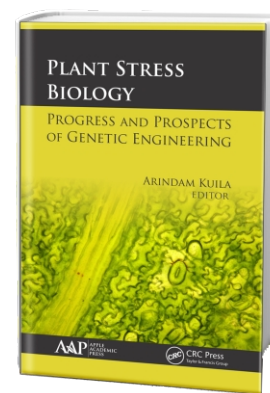
## PLANT STRESS BIOLOGY

### *Progress and Prospects of Genetic Engineering*

Editor: Arindam Kuila, Banasthali Vidyapith, India

Covers the molecular aspects of plant stress and the various industrial applications. Chapters cover the biology of plant stress, including morphological and physiological changes of plants due to accumulation of pollutants; the types of stress for enhanced biofuel production from plant biomass; plant adaptation due to different types of environmental stresses; potential applications of microRNAs to improve abiotic stress tolerance in plants; plant resistance to viruses and the molecular aspects; photosynthesis under stress conditions; plant responses to weeds, pests, pathogens, and agricultural stress conditions; and plant responses under the stress of drought.

362 pages with index. 13 color and 18 b/w illustrations.  
HB ISBN: 978-1-77188-925-4 / eBook ISBN: 9781003055358  
\$179.95 US / £139.00. December 2020.



## PLANT ABIOTIC STRESS PHYSIOLOGY, 2-VOLUME SET

*Volume 1: Responses and Adaptations*  
*Volume 2: Molecular Advancements*

Editors: Tariq Aftab, Aligarh Muslim University, India  
Khalid Rehman Hakeem, King Abdulaziz University, Saudi Arabia

Highlights the various innovative and emerging techniques and molecular applications that are currently being used in plant abiotic stress physiology. Volume 1 focuses on the responses and adaptations of plants to stress factors at the cellular and molecular levels and offers a variety of advanced management strategies and technologies. Volume 2 introduces a range of state-of-the-art molecular advances for the mitigation of abiotic stress in plants.

### 2-VOLUME SET:

748 pages. 9 color and 39 b/w illustrations.  
HB ISBN: 978-1-77463-016-7 / eBook ISBN: 9781003180555  
\$339.95 US / £262.00 UK. February 2022.

### VOLUME 1: RESPONSES AND ADAPTATIONS

426 pages with index. 5 color and 23 b/w illustrations.  
HB ISBN: 978-1-77463-017-4 / eBook ISBN: 9781003180562  
\$169.95 US / £131.00.

### VOLUME 2: MOLECULAR ADVANCEMENTS

322 pages with index. 4 color and 16 b/w illustrations.  
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\$169.95 US / £131.00.

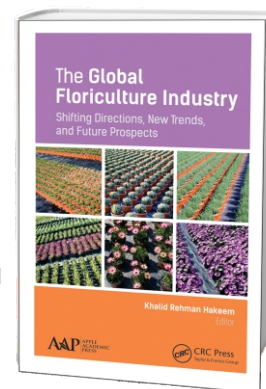
## THE GLOBAL FLORICULTURE INDUSTRY

### *Shifting Directions, New Trends, and Future Prospects*

Editor: Khalid Rehman Hakeem, King Abdulaziz University, Saudi Arabia

Presents research trends and areas of improvement to benefit the floriculture industry and to understand future directions and prospects. It also looks at the role of plants in stabilizing the environment and the use of scientific knowledge through research that has changed the perspective of modern floriculture.

168 pages with index. 13 color illustrations.  
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*Current Trends and Future Prospects*

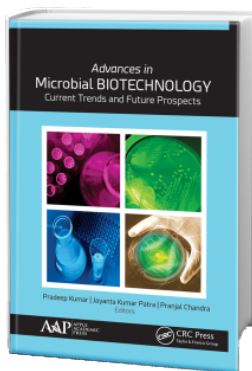
Editors: Pradeep Kumar, Jayanta Kumar Patra, and Pranjal Chandra

Focuses on the application of microorganisms for several purposes: for plant protection and improvement, for environmental remediation purposes, and for the improvement of human health.

August 2018

ISBN hard: 978-1-77188-667-3 /

ISBN paperback: 978-1-77463-157-7



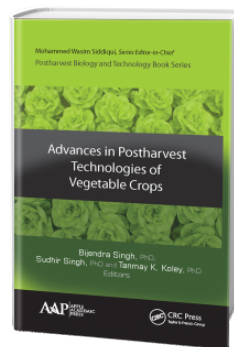
**ADVANCES IN POSTHARVEST TECHNOLOGIES OF VEGETABLE CROPS**

Editors: Bijendra Singh, Sudhir Singh, and Tanmay K. Koley

Presents a selection of innovative postharvest management practices for vegetables. It covers technologies in harvesting, handling, and storage of vegetables, including strategies for low-temperature storage of vegetables, active and smart packaging of vegetables, edible coatings, application of nanotechnology in postharvest technology of vegetable crops, and more. It considers the most important areas of vegetable processing while maintaining nutritional quality and addressing safety issues related to vegetable processing.

May 2018, ISBN hard: 978-1-77188-619-2

ISBN paperback: 978-1-77463-057-0



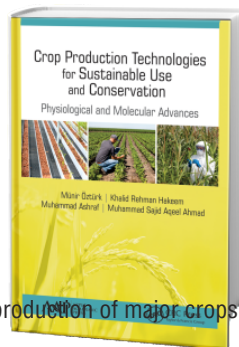
**CROP PRODUCTION TECHNOLOGIES FOR SUSTAINABLE USE AND CONSERVATION**

Editors: Münir Öztürk, Khalid Rehman Hakeem, Muhammad Ashraf, and Muhammad Sajid Aqeel Ahmad

Presents an abundance of research on important and new production technologies for the successful sustainable production of major crops. The volume covers most of the major crops used the production of food, sugar, and commercial fiber.

March 2019,

ISBN hard: 978-1-77188-726-7 / ISBN paperback: 978-1-77463-407-3



**AGRICULTURAL DRONES**

*A Peaceful Pursuit*

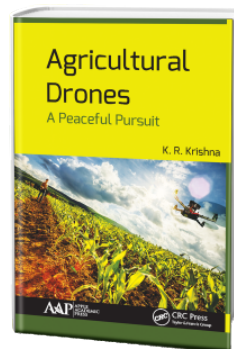
K. R. Krishna

Provides a wealth of information on drone usage in agriculture. The book explores the advanced sensors and imaging capabilities of drones that give farmers new ways to increase yields and reduce crop

damage. March 2018,

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ISBN paperback: 9781771885959



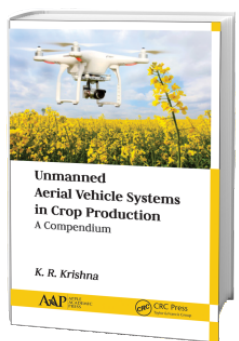
**UNMANNED AERIAL VEHICLE SYSTEMS IN CROP PRODUCTION**

*A Compendium*

K. R. Krishna

Provides a detailed review of 250 UAVs that examines their usefulness in enhancing profitability, yield, and quality of crop production. This compendium examines the most useful drones and provides the pertinent details about each drone, its producer, cost incurred, and its pros and cons. It covers their technical specifications, suitability for various purposes, previous performances in farms, and possible benefits to farmers. July 2019,

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**AGROFORESTRY AND CLIMATE CHANGE**

*Issues and Challenges*

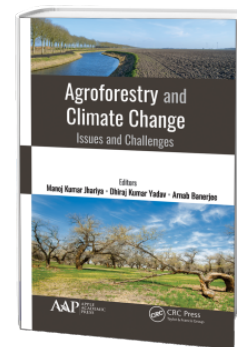
Editors: Manoj Kumar Jhariya, Dhiraj Kumar Yadav, and Arnab Banerjee

Addresses the diverse issues of climate change and how agroforestry systems can be effectively utilized to minimize these impacts and enhance sustainability.

June 2019,

ISBN hard: 978-1-77188-790-8 /

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## AGRONOMIC RICE PRACTICES AND POSTHARVEST PROCESSING

*Production and Quality Improvement*

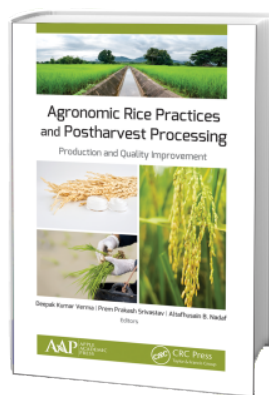
Editors: Deepak Kumar Verma, Prem Prakash Srivastav, and Altafhusain B. Nadaf

Addresses three important agricultural aspects of rice: physical characteristics, physico-chemical characteristics of rice, and the organoleptic aspects of rice.

December 2018,

ISBN hard: 978-1-77188-712-0

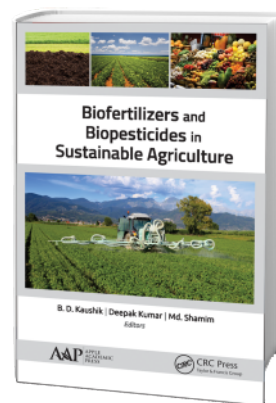
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## BIOFERTILIZERS AND BIOPESTICIDES IN SUSTAINABLE AGRICULTURE

Editors: B. D. Kaushik, Deepak Kumar, and Md. Shamim

Presents strategies for the management of soil and crop diseases using various microbial management approaches to achieve the desired levels of crop yield under both conventional soils and neglected soils through the use of biopesticides and other botanicals as well as biomolecules. November 2019, ISBN hard: 978-1-77188-793-9 / ISBN paperback: 978-1-77463-466-0

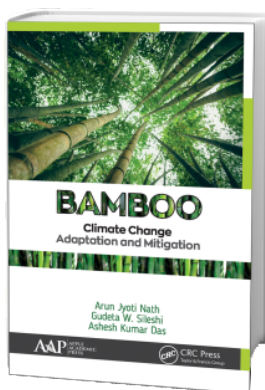


## BAMBOO

*Climate Change Adaptation and Mitigation*

Arun Jyoti Nath, Gudeta W. Sileshi, and Ashesh Kumar Das

Presents an abundance of important information and case studies that deal with bamboo farming and its effects from and on climate change adaptation and mitigation. March 2020, ISBN paperback: 978-1-77188-830-1



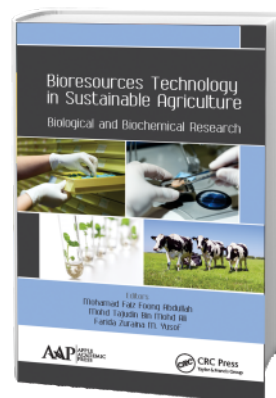
## BIORESOURCES TECHNOLOGY IN SUSTAINABLE AGRICULTURE

Editors: Mohamad Faiz Foong Abdullah, Mohd Tajudin Bin Mohd Ali, Farida Zuraina M. Yusof

Focuses on the recent cutting-edge advances and applications in tropical agriculture and bioresources. It outlines some of the newest advances, basic tools, and the applications of novel approaches to improve agricultural practices and utilization of bioresources for the enhancement of human life.

February 2018, ISBN hard: 978-1-77188-933-9

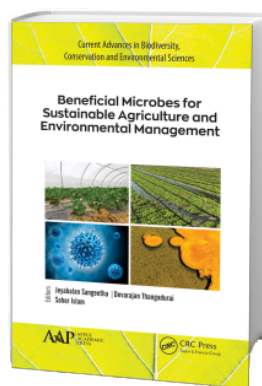
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## BENEFICIAL MICROBES FOR SUSTAINABLE AGRICULTURE AND ENVIRONMENTAL MANAGEMENT

Editors: Jeyabalan Sangeetha, Devarajan Thangadurai, and Saher Islam, MPhil

Reviews the multifaceted interactions among microbes, ecosystems, and their pivotal role in maintaining a more balanced environment, in order to help facilitate living organisms coexisting with the natural environment. April 2020, ISBN hard: 978-1-77188-818-9



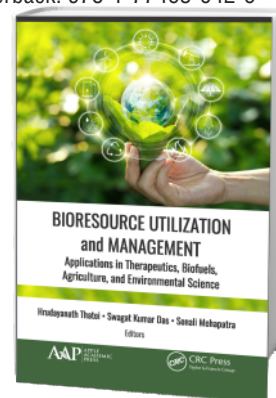
## BIORESOURCE UTILIZATION AND MANAGEMENT

Applications in Therapeutics, Biofuels, Agriculture, and Environmental Science

Editors: Hrudayanath Thatoi, Swagat Kumar Das, and Sonali Mohapatra

Covers utilization of bioresources in therapeutics, in biofuel, in agriculture, and in environmental protection. Beginning with the diverse potential applications of bioresources in food, medicine, and cosmetics, the volume goes on to address the various different underutilized bioresources and their sustainable uses. It discusses important advances in biofuel and patents that highlight recent developments that address the energy crises and the continuously fluctuating cost of petroleum. It explores new energy renewable sources from bioresources and their sustainable utilization in the bioenergy and biofuel industry.

October 2021, ISBN hard: 978-1-77188-933-9



## BIOCATALYSIS AND AGRICULTURAL BIOTECHNOLOGY

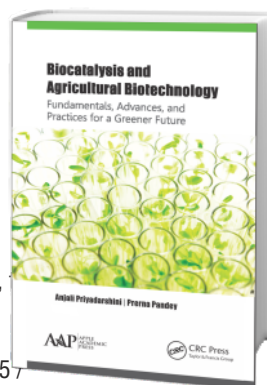
Fundamentals, Advances, and Practices for a Greener Future

Anjali Priyadarshini, and Purna Pandey

Looks at the application of a variety of technologies, both fundamental and advanced, crop improvement, metabolic engineering, and the development of transgenic plants.

August 2018, ISBN hard: 978-1-77188-689-5

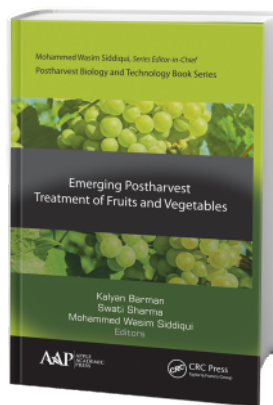
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## EMERGING POSTHARVEST TREATMENT OF FRUITS AND VEGETABLES

Editors: Kalyan Barman, Swati Sharma, and Mohammed Wasim Siddiqui

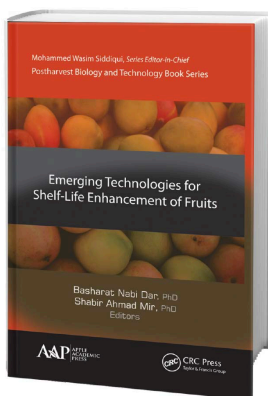
Addresses the demand for the development and application of effective technologies for preservation of perishable food products, particularly fresh fruits and vegetables. September 2018, ISBN hard: 978-1-77188-700-7 / ISBN paperback: 978-1-77463-399-1



## EMERGING TECHNOLOGIES FOR SHELF-LIFE ENHANCEMENT OF FRUITS

Editors: Basharat Nabi Dar, and Shabir Ahmad Mir

The volume looks at the factors that contribute to shortening shelf life and innovative solutions to maintaining quality while increasing the length of time fruit remains fresh, nutritious, and edible. May 2020, ISBN hard: 978-1-77188-802-8 ISBN paperback: 978-1-77463-475-2

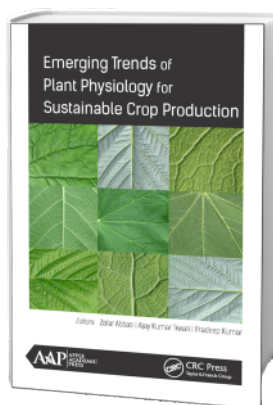


## EMERGING TRENDS OF PLANT PHYSIOLOGY FOR SUSTAINABLE CROP PRODUCTION

Editors: Zafar Abbas, Ajay Kumar Tiwari, and Pradeep Kumar

Provides an understanding of the physiological basis of the various plant processes and their underlying mechanisms under fluctuating environments, which is of great importance for sustainable crop production.

March 2018, ISBN hard: 978-1-77188-636-9 / ISBN paperback: 978-1-77463-076-1

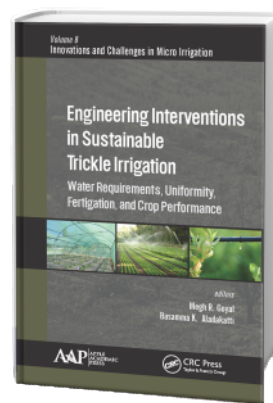


## ENGINEERING INTERVENTIONS IN SUSTAINABLE TRICKLE IRRIGATION

*Water Requirements, Uniformity, Fertigation, and Crop Performance*

Editors: Megh R. Goyal and Basamma K. Aladakatti

Presents valuable research that evaluates crop water and fertigation requirements, examines optimum irrigation and fertigation scheduling, and analyzes the performance of agricultural crops under micro irrigation. April 2018, ISBN hard: 978-1-77188-601-7 / ISBN paperback: 978-1-77463-639-8

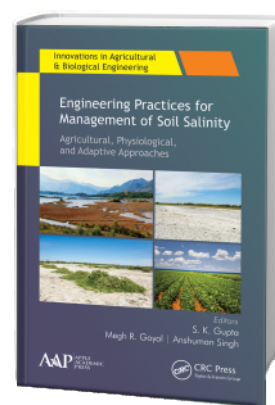


## ENGINEERING PRACTICES FOR MANAGEMENT OF SOIL SALINITY

*Agricultural, Physiological, and Adaptive Approaches*

Editors: S. K. Gupta, Megh R. Goyal, and Anshuman Singh

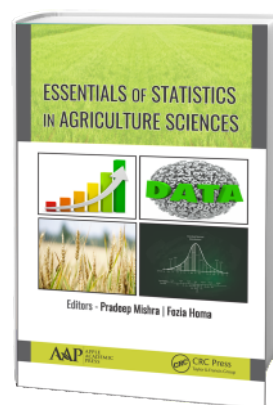
Explores and conveys the latest information on emerging technologies in the management of abiotic salt stress and their field applications. August 2018, ISBN hard: 978-1-77188-676-5 / ISBN paperback: 978-1-77463-162-1



## ESSENTIALS OF STATISTICS IN AGRICULTURAL SCIENCES

Editors: Pradeep Mishra and Fozia Homa

This introductory text presents the basic concepts of statistical tools specifically as applied to the statistics of agriculture and allied fields. An understanding of the basics, logic, and theory of statistics is very essential for agricultural researchers for dealing with the interpretation of data. This volume covers basic statistics, design of experiments, concepts of sampling techniques, time series, inference outlines, and other topics in an easy-to-understand manner and is aimed at students and researchers with little or no mathematical background. July 2019, ISBN hard: 978-1-77188-752-6 / ISBN paperback: 978-1-77463-444-8



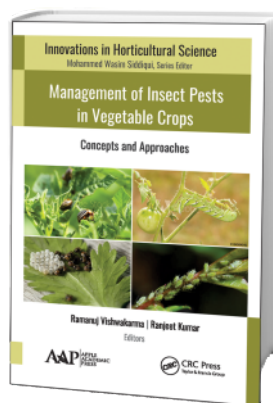
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## MANAGEMENT OF INSECT PESTS IN VEGETABLE CROPS

Concepts and Approaches

Editors: R. K. Singh, and Gopala

Provides an abundance of new research and information on major diseases of various crops along with new techniques and technology for the detection of plant pathogens along with appropriate management strategies. Divided into three volumes and with chapters written by renowned and expert scientists working in different areas of plant pathology, the volumes cover important diseases of crops, incited by bacteria, fungi, viruses, viroids, phytoplasma, and nematodes. They address these disease challenges to commercial field and horticultural crops and their management. July 2021, ISBN hard: 978-1-77188-859-2



## FORAGE CROPS OF THE WORLD

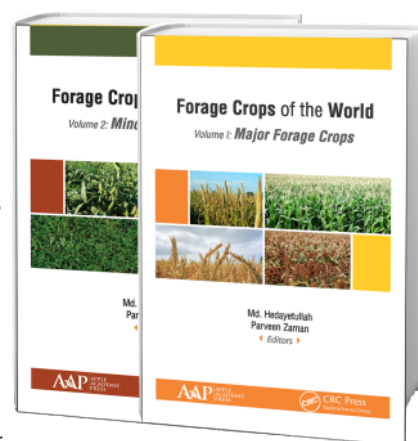
2-volume set

Volume I: Major Forage Crops  
Volume II: Minor Forage Crops

Editors: Md. Hedayetullah and Parveen Zaman

Discusses the importance of fodder production of the minor fodder crops for animals. The volumes focus on fodder production for forage crops, cover 17 major forage crops and 25 minor forage crops. They discuss crop production methodology and agronomic management in a systemic way, providing an abundance of information on each type of forage crop discussed, including preferred soil type, land capability, cropping patterns, climate, and socioeconomic conditions. They also address pests of the various forage crops, disease management, agroforestry in fodder and forage crops, preservation of forage crops, and forage production and climate change. August 2018

Vol 1: ISBN hard: 978-1-77188-684-0 / ISBN paperback: 978-1-77463-169-0  
Vol 2: ISBN hard: 978-1-77188-685-7 / ISBN paperback: 978-1-77463-170-6  
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## MANAGEMENT STRATEGIES FOR WATER USE EFFICIENCY AND MICRO IRRIGATED CROPS

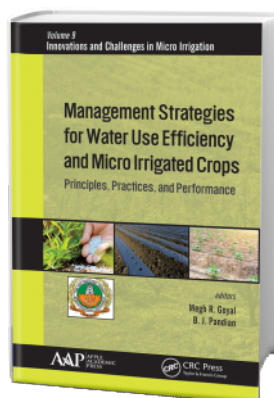
Principles, Practices, and Performance

Editors: Megh R. Goyal and B. J. Pandian

Presents new research and technologies for making better use of water resources for agricultural purposes. The chapters focus on better management to improve allocation and irrigation water efficiency and look at performance factors as well.

February 2019,

ISBN hard: 978-1-77188-791-5 / ISBN paperback: 978-1-77463-467-7

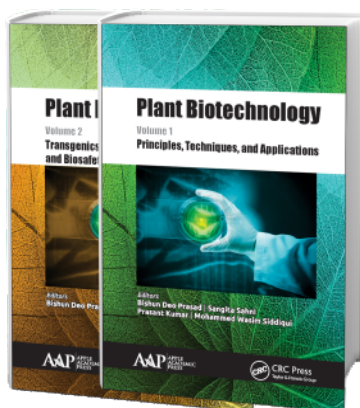
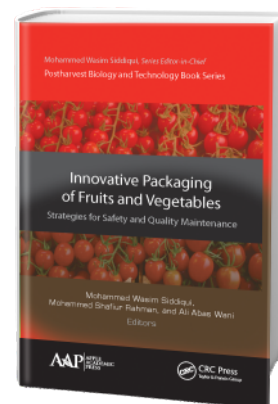


## INNOVATIVE PACKAGING OF FRUITS AND VEGETABLES

Strategies for Safety and Quality Maintenance

Editors: Mohammed Wasim Siddiqui, Mohammad Shafiuur Rahman, and Ali Abas Wani

Addresses the challenges of the short shelf-life of fruits and vegetables and discusses innovative packaging technologies for overcoming these limitations. May 2018, ISBN hard: 978-1-77188-597-3 / ISBN paperback: 978-1-77463-138-6



## PLANT BIOTECHNOLOGY (2-volume set)

Volume 1: Principles, Techniques, and Applications

Volume 2: Transgenics, Stress Management, and Biosafety Issues

Editors: Bishun Deo Prasad, Sangita Sahni, Prasant Kumar, and Mohammed Wasim Siddiqui

Provides a plethora of current knowledge on new as well as fresh approaches that are necessary to address biological problems in plant food production. The volumes provide an informative tour of plant biotechnology, covering the basics of biotechnology to recent advances, taking a thorough look at applications as well.

January 2018, Vol 1: ISBN hard: 978-1-77188-580-5 / ISBN paperback: 978-1-77463-110-2

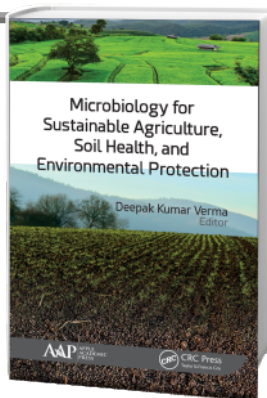
Vol 2: SBN hard: 978-1-77188-581-2/ ISBN paperback: 978-1-77463-111-9

2-Vol set: ISBN hard: 178-1-77188-582-9

## MICROBIOLOGY FOR SUSTAINABLE AGRICULTURE, SOIL HEALTH, AND ENVIRONMENTAL PROTECTION

Editor: Deepak Kumar Verma

Focuses on important areas of microbiology related to soil and environmental microbiology associated with agricultural importance. March 2019, ISBN hard: 978-1-77188-669-7 / ISBN paperback: 978-1-77463-535-3

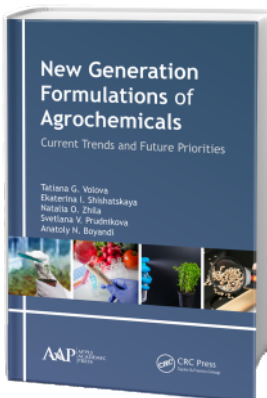


## NEW GENERATION FORMULATIONS OF AGROCHEMICALS

*Current Trends and Future Priorities*

Tatiana G. Volova, Ekaterina I. Shishatskaya, Natalia O. Zhila, Svetlana V. Prudnikova, and Anatoly N. Boyandin

Provides new research on the design and application of ecologically safe formulations for protecting cultivated crops against pathogen-causing diseases and weeds—that also provide nitrogen *fertilizers at the same time*. June 2019, ISBN hard: 978-1-77188-749-6 / ISBN paperback: 978-1-77463-428-8

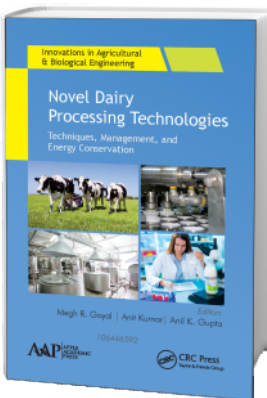


## NOVEL DAIRY PROCESSING TECHNOLOGIES

Techniques, Management, and Energy Conservation

Editors: Megh R. Goyal, Anil Kumar, and Anil K. Gupta

Focuses on the processing of milk by novel techniques, emphasizing the conservation of energy and effective methods. March 2018, ISBN hard: 978-1-77188-612-3 / ISBN paperback: 978-1-77463-635-0

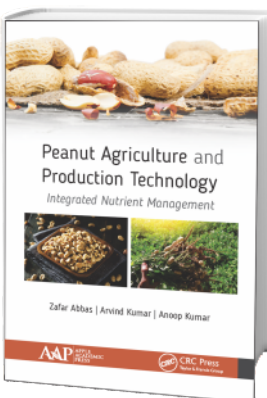


## PEANUT AGRICULTURE AND PRODUCTION TECHNOLOGY

Integrated Nutrient Management

Zafar Abbas, Arvind Kumar, and Anoop Kumar

Focuses on agricultural techniques and integrated nutrient management of peanuts (*Arachis hypogaea* L.). The volume includes basic and advanced information on physiology, proper environmental conditions production, agrotechniques, and integrated nutrient management of peanut agriculture. March 2018, ISBN hard: 978-1-77188-613-0 / ISBN paperback: 978-1-77463-634-3

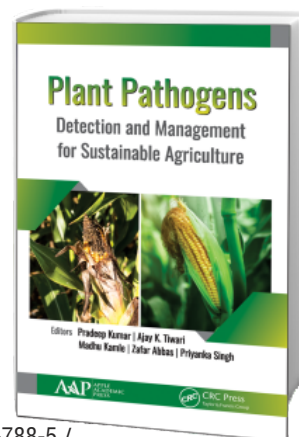


## PLANT PATHOGENS

Detection and Management for Sustainable Agriculture

Editors: Pradeep Kumar, Ajay K. Tiwari, Madhu Kamle, Zafar Abbas, and Priyanka Singh

Addresses the most critical issues in pathogen disease diagnosis and management. They look at both traditional pathology as well as new and advanced biotechnological and molecular diagnosis approaches. December 2019, ISBN hard: 978-1-77188-788-5 / ISBN paperback: 978-1-77463-463-9

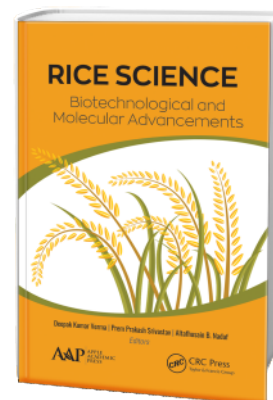


## RICE SCIENCE

Biotechnological and Molecular Advancements

Editors: Deepak Kumar Verma, Prem Prakash Srivastav, and Altafhusain B. Nadaf

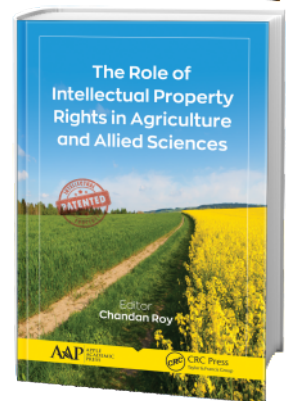
Addresses the recent biotechnological and molecular tools and techniques that are utilized to increase rice production. December 2018, ISBN hard: 978-1-77188-692-5 / ISBN paperback: 978-1-77463-390-8



## THE ROLE OF INTELLECTUAL PROPERTY RIGHTS IN AGRICULTURE AND ALLIED SCIENCES

Editor: Chandan Roy

Provides a basic understanding of the different forms of intellectual property rights in agricultural science. It provides an abundance of information on the use of IP laws in agriculture and allied subjects and their proper implementation in real-life practice. The chapter authors discuss different kinds of IP laws and their current status in developed as well as developing countries throughout the world. July 2018, ISBN hard: 978-1-77188-698-7 / ISBN paperback: 978-1-77463-392-2



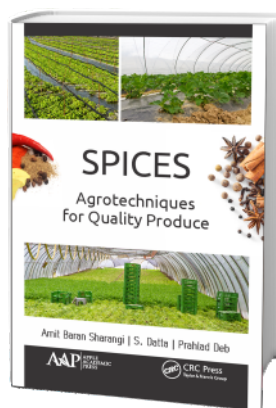
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## SPICES

*Agrotechniques for Quality Produce*

Amit Baran Sharangi, Suchand Datta, and Prahlad Deb

Offers comprehensive coverage on the subject of Indian spices and their agrotechniques. It is a rich compilation of agrotechniques coupled with background information, research work, and scientific discussion on the basic and applied aspects on the subject. March 2018, ISBN hard: 978-1-77188-635-2 / ISBN paperback: 978-1-77463-075-4

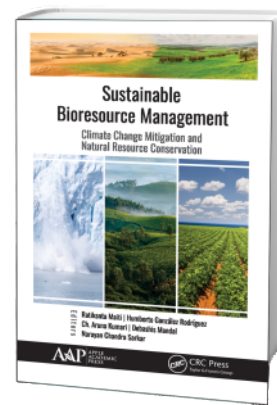


## SUSTAINABLE BIORESOURCE MANAGEMENT

*Climate Change Mitigation and Natural Resource Conservation*

Editors: Ratikanta Maiti, Humberto González Rodríguez, Ch. Aruna Kumari, Debashis Mandal, and Narayan Chandra Sarkar

Emphasizes the drastic quantitative and qualitative transformation of our surrounding environment. It looks at bioresource management and the tools needed to manage environmental stresses. This unique compilation and interpretation of concrete scientific ventures undertaken by environmental specialists at the global level explores research dedicated to the management of natural resources by controlling biotic and abiotic factors making the earth vulnerable to these stresses. April 2020, ISBN hard: 978-1-77188-815-8 / ISBN paperback: 978-1-77463-511-7

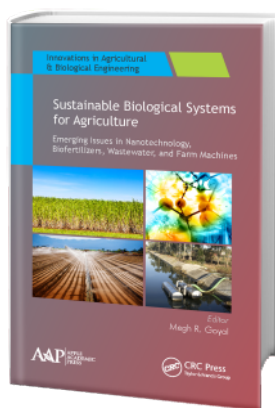


## SUSTAINABLE BIOLOGICAL SYSTEMS FOR AGRICULTURE

*Emerging Issues in Nanotechnology, Biofertilizers, Wastewater, and Farm Machines*

Editor: Megh R. Goyal

Explores and introduces the use of nanotechnology, biofertilizers, and design of farm machines in agriculture, emphasizing sustainable solutions for the enhancement of agricultural processes. May 2018, ISBN hard: 978-1-77188-614-7 / ISBN paperback: 978-1-77463-053-2

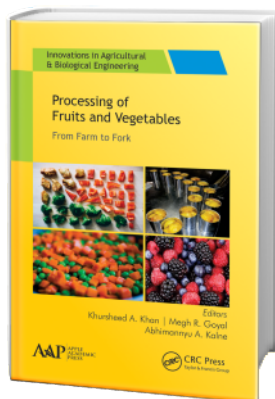


## PROCESSING OF FRUITS AND VEGETABLES

*From Farm to Fork*

Editor: Arindam Kuila

Covers the molecular aspects of plant stress and the various industrial applications, including morphological and physiological changes of plants due to accumulation of pollutants; the types of stress for enhanced biofuel production from plant biomass; plant adaptation due to different types of environmental stresses; potential applications of microRNAs to improve abiotic stress tolerance in plants; plant resistance to viruses and the molecular aspects; photosynthesis under stress conditions; plant responses to weeds, pests, pathogens, and agrichemical stress conditions; and plant responses under the stress of drought. December 2020, ISBN hard: 978-1-77188-708-3 / ISBN paperback: 978-1-77463-403-5



## SUSTAINABLE HORTICULTURE, 2-volume set:

*Volume 1: Diversity, Production, and Crop Improvement*  
*Volume 2: Food, Health, and Nutrition*

Editors: Debashis Mandal, Amritesh C. Shukla, and Mohammed Wasim Siddiqui

Addresses the most important topics facing horticulture around the world today. Volume 1 outlines the contemporary trends in sustainable horticulture research in particular, covering topics on crop diversity, species variability and conservation strategies, production technology, tree architecture management, plant propagation and nutrition management, organic farming, and new dynamics in breeding and marketing of horticulture crops. Volume 2 covers research trends in sustainable horticulture that include postharvest management and processed food production from horticulture crops, crop protection and plant health management, and horticulture for human health and nutrition. July 2018, Vol 1: Hard ISBN: 978-1-77188-646-8 / ISBN paperback: 978-1-77463-124-9 Vol 2: Hard ISBN: 978-1-77188-647-5 / ISBN paperback: 978-1-77463-124-9 2-Vol set: Hard ISBN: 978-1-77188-649-9

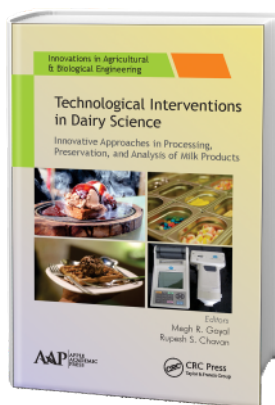
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## TECHNOLOGICAL INTERVENTIONS IN DAIRY SCIENCE

Innovative Approaches in Processing, Preservation, and Analysis of Milk Products

Editors: Rupesh S. Chavan and Megh R. Goyal

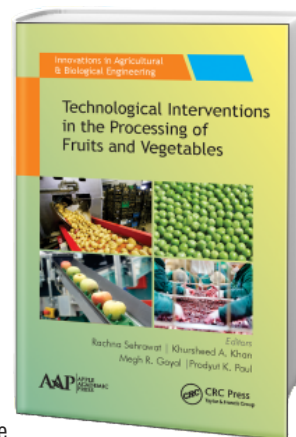
Covers a selection of important novel technological interventions in dairy science, from the physical properties of milk and other milk products to non-thermal processing of milk. It also discusses safety methods in dairy science, which includes cleaning-in-place and techniques to determine adulteration in milk. February 2018, ISBN hard: 978-1-77188-609-3 / ISBN paperback: 978-1-77463-637-4



## TECHNOLOGICAL INTERVENTIONS IN THE PROCESSING OF FRUITS AND VEGETABLES

Editors: Rachna Sehrawat, Khursheed A. Khan, Megh R. Goyal, and Prodyut K. Paul

Presents a wide selection of the latest concepts in the fast-changing field of processing of fruits and vegetables (FAV). It provides key information on many new and different techniques used for processing of fruits and vegetables while also exploring the pros and cons of the various methods. March 2018, ISBN hard: 978-1-77188-586-7 / ISBN paperback: 978-1-77463-645-9



## TECHNOLOGICAL INTERVENTIONS IN MANAGEMENT OF IRRIGATED AGRICULTURE

Editors: Megh R. Goyal, Susmitha S. Nambuthiri, and Richard Koech

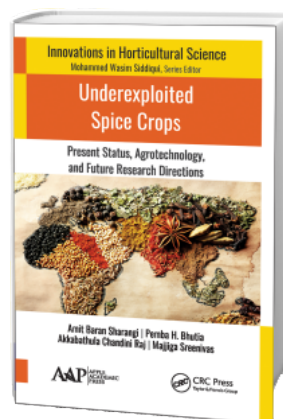
Offers an abundance of solutions to address agricultural water management challenges in today's water-scarce areas of the world. The authors present studies on farmer-friendly irrigation scheduling methods, model-based analysis of crop water requirements, ways to optimize surface irrigation systems, and hydraulic design and management of surface water systems. February 2018, ISBN hard: 978-1-77188-592-8, ISBN paperback: 978-1-77463-643-5



## UNDEREXPLOITED SPICE CROPS Present Status, Agrotechnology, and Future Research Directions

Amit Baran Sharangi, Pemba H. Bhutia, Akkabathula Chandini Raj, and Majjiga Sreenivas

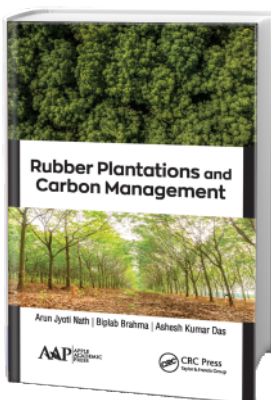
A valuable compilation of agrotechniques coupled with background information, research works, and scientific discussions on these spices. It includes in-depth narration on underexploited spice crops as products in influencing present-day the global export market and the renewed interest in these crops throughout the world. August 2018, ISBN hard: 978-1-77188-697-0 / ISBN paperback: 978-1-77463-391-5



## RUBBER PLANTATIONS AND CARBON MANAGEMENT

Arun Jyoti Nath, Biplab Brahma, and Ashesh Kumar Das

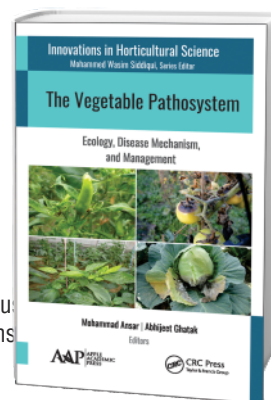
Explores the ecology of rubber plantations in the context of carbon management under a scenario of our changing climate. Gives an in-depth study of the carbon stock and sequestration potentiality of rubber plantations. Also provides information on a biomass estimating model that can be used in future study of non-harvesting biomass estimation for a variety of plants. October 2019, ISBN hardback: 978-1-77188-783-0 ISBN paperback: 978-1-77463-459-2



## THE VEGETABLE PATHOSYSTEM Ecology, Disease Mechanism, and Management

Editors: Mohammad Ansar and Abhijeet Ghatak

Provides an overview of the multitude of pathogens that plague vegetables in various conditions as well as the growing concerns associated with these phytopathogens. December 2019, ISBN hard: 978-1-77188-776-2 ISBN paperback: 978-1-77463-454-7



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