
L Alga C Rie En Ha C Ritage Art Et Histoire

Fermentative Hydrogen Production
 Impact of Pesticides on Farmer Health and the Rice Environment
 Handbook of Marine Microalgae
 Handbook of Microbial Biofertilizers
 Bibliography of Agriculture
 Nanomaterial Biointeractions at the Cellular, Organismal and System Levels
 Biotechnological Processes for Green Energy, and High Value Bioproducts by Microalgae, and Cyanobacteria Cultures
 Charting New Pathways to C4 Rice
 Algal Green Chemistry
 Herbicides and Environment
 Biology and Management of the Floodwater Ecosystem in Rice Fields
 Microalgae
 Plant Genome Diversity Volume 1
 Agro-Environmental Sustainability
 The Rice Journal
 Residue Reviews
 Growth Regulators and Biostimulants: Upcoming Opportunities
 Bacteria in Agrobiolgy: Crop Ecosystems
 Naturalists' Directory ...
 Advances in Rice Research for Abiotic Stress Tolerance
 Handbook of Microalgal Mass Culture (1986)
 Algae and Human Affairs
 Rice Farming Systems
 The Naturalist's Directory
 Autophagy in plants and algae
 Biological Nitrogen Fixation
 Exploitation of Microorganisms
 The Council of Trent: Reform and Controversy in Europe and Beyond (1545-1700)
 Nutrition of Rice
 Harmful Algal Blooms
 Biofertilizers and Biopesticides in Sustainable Agriculture
 The Naturalists' Directory (International).
 Rice in Deep Water
 Heavy Metal Toxicity in Plants
 Handbook of Biorefinery Research and Technology: Production of Biofuels and Biochemicals
 Algal Biorefineries and the Circular Bioeconomy
 The Ecology of Cyanobacteria
 Blue-green Algae and Rice
 Biology & Botany Vol.-II
 Nanomaterials in Plants, Algae, and Microorganisms

L Alga C Rie En Ha C Ritage Art Et Histoire

Downloaded from qr.bonide.com by guest

REGINA DAPHNE

Fermentative Hydrogen Production Springer Nature
 The future of agriculture strongly depends on our ability to enhance productivity without sacrificing long-term production potential. An ecologically and economically sustainable strategy is the application of microorganisms, such as the diverse bacterial species of plant growth promoting bacteria (PGPB). The use of these bio-resources for the enhancement of crop productivity is gaining worldwide importance. Bacteria in *Agrobiolgy: Crop Ecosystems* describes the beneficial role of plant growth promoting bacteria with special emphasis on oil yielding crops, cereals, fruits and vegetables. Chapters present studies on various aspects of bacteria-plant interactions, soil-borne and seed-borne diseases associated with food crops such as rice, sesame, peanuts, and horticultural crops. Further reviews describe technologies to produce inoculants, the biocontrol of post harvest pathogens as a suitable alternative to agrochemicals, and the restoration of degraded soils.

Impact of Pesticides on Farmer Health and the Rice Environment
 John Wiley & Sons

Herbicides are much more than just weed killers. They may exhibit beneficial or adverse effects on other organisms. Given their toxicological, environmental but also agricultural relevance, herbicides are an interesting field of activity not only for scientists working in the field of agriculture. It seems that the investigation of herbicide-induced effects on weeds, crop plants, ecosystems, microorganisms, and higher organism requires a multidisciplinary approach. Some important aspects regarding the multisided impacts of herbicides on the living world are highlighted in this book. I am sure that the readers will find a lot of helpful information, even if they are only slightly interested in the topic.

Handbook of Marine Microalgae Springer Nature

The book covers the various aspects of the use of pesticides, their behavior, degradation, and impacts in wetland ricefields, and presents the results of surveys conducted in the Philippines and Thailand. It includes both bibliographic reviews and selected aspects of the experimental results of a research project on pesticide impacts in wetland ricefields. The first phase of the

'Pesticide Impact' project was developed in the Philippines from 1989 to 1991. It was a multidisciplinary/collaborative approach involving scientists from IRRI, NRI (England), ORSTOM (France), UPLB (Philippines) who studied the effects of pesticides on the environment and on farmers' health, and the economical aspects of their use.

Handbook of Microbial Biofertilizers Springer

This volume aims to provide a detailed synthesis of the major roles that algae play in human life. The book is divided into four parts covering both the valuable and detrimental effects of algae and the final section considers their current and future applications to industry and space exploration.

Bibliography of Agriculture Springer Science & Business Media

This new volume, *Biofertilizers and Biopesticides in Sustainable Agriculture*, presents strategies for the management of soil and crop diseases. Microbes have attracted worldwide attention due to their role in disease management and remediation of polluted soils. Taking a sustainable approach, this book explores the means of integrating 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. This book also presents a broad and updated view of molecular nitrogen fixation and phosphate-solubilizing and sulfur-transforming microbes for nutrition of crops in relation to the role of metal tolerant microbes in providing protection to plants grown in metal-contaminated soils. The preparation and application of biofertilizers, utilization of household waste materials, and use of genetically modified microorganisms (GMOs) in plant growth and development are also well discussed in the volume.

Nanomaterial Biointeractions at the Cellular, Organismal and System Levels Springer Science & Business Media

Nitrogen is arguably the most important nutrient required by plants. However, the availability of nitrogen is limited in many soils and although the earth's atmosphere consists of 78.1% nitrogen gas (N₂) plants are unable to use this form of nitrogen. To compensate, modern agriculture has been highly reliant on industrial nitrogen fertilizers to achieve maximum crop productivity. However, a great deal of fossil fuel is required for the production and delivery of nitrogen fertilizer. Moreover carbon dioxide (CO₂) which is released during fossil fuel combustion contributes to the greenhouse effect and run off of nitrate leads to eutrophication of the waterways. Biological nitrogen fixation is an alternative to nitrogen fertilizer. It is carried out by prokaryotes using an enzyme complex called nitrogenase and results in atmospheric N₂ being reduced into a form of nitrogen diazotrophic organisms and plants are able to use (ammonia). It is this process and its major players which will be discussed in this book. *Biological Nitrogen Fixation* is a comprehensive two volume work bringing together both review and original research articles on key topics in nitrogen fixation. Chapters across both volumes emphasize molecular techniques and advanced biochemical analysis approaches applicable to various aspects of biological nitrogen fixation. Volume 1 explores the chemistry and biochemistry of nitrogenases, nif gene regulation, the taxonomy, evolution, and genomics of nitrogen fixing organisms, as well as their physiology and metabolism. Volume 2 covers the symbiotic interaction of nitrogen fixing organisms with their host plants, including nodulation and symbiotic nitrogen fixation, plant and microbial "omics", cyanobacteria, diazotrophs and non-legumes, field studies and inoculum preparation, as well as nitrogen fixation and cereals. Covering the full breadth of current nitrogen fixation research and expanding it towards future advances in the field, *Biological Nitrogen Fixation* will be a one-stop reference for microbial

ecologists and environmental microbiologists as well as plant and agricultural researchers working on crop sustainability.

Biotechnological Processes for Green Energy, and High Value Bioproducts by Microalgae, and Cyanobacteria Cultures CRC Press

Autophagy (also known as macroautophagy) is an evolutionarily conserved process by which cytoplasmic components are nonselectively enclosed within a double-membrane vesicle known as the autophagosome and delivered to the vacuole for degradation of toxic components and recycling of needed nutrients. This catabolic process is required for the adequate adaptation and response of the cell, and correspondingly the whole organism, to different types of stress including nutrient starvation or oxidative damage. Autophagy has been extensively investigated in yeasts and mammals but the identification of autophagy-related (ATG) genes in plant and algal genomes together with the characterization of autophagy-deficient mutants in plants have revealed that this process is structurally and functionally conserved in photosynthetic eukaryotes. Recent studies have demonstrated that autophagy is active at a basal level under normal growth in plants and is upregulated during senescence and in response to nutrient limitation, oxidative stress, salt and drought conditions and pathogen attack.

Autophagy was initially considered as a non-selective pathway, but numerous observations mainly obtained in yeasts revealed that autophagy can also selectively eliminate specific proteins, protein complexes and organelles. Interestingly, several types of selective autophagy appear to be also conserved in plants, and the degradation of protein aggregates through specific adaptors or the delivery of chloroplast material to the vacuole via autophagy has been reported. This research topic aims to gather recent progress on different aspects of autophagy in plants and algae. We welcome all types of articles including original research, methods, opinions and reviews that provide new insights about the autophagy process and its regulation.

Charting New Pathways to C4 Rice YOUTH COMPETITION TIMES

Setting the science; C4 rice from theory to practice; Single-cell c4 systems; The background and how C4 rice can be delivered; Setting up the consortium.

Algal Green Chemistry CRC Press

In this timely new 2-volume treatise, experts from around the world have banded together to produce a first-of-its-kind synopsis of the exciting and fast moving field of plant evolutionary genomics. In Volume I of *Plant Genome Diversity*, an update is provided on what we have learned from plant genome sequencing projects. This is followed by more focused chapters on the various genomic "residents" of plant genomes, including transposable elements, centromeres, small RNAs, and the evolutionary dynamics of genes and non-coding sequences. Attention is drawn to advances in our understanding of plant mitochondrial and plastid genomes, as well as the significance of duplication in genic evolution and the non-independent evolution among sequences in plant genomes. Finally, Volume I provides an introduction to the vibrant new frontier of plant epigenomics, describing the current state of our knowledge and the evolutionary implications of the epigenomic landscape.

Herbicides and Environment CRC Press

Worldwide concern in scientific, industrial, and governmental communities over traces of toxic chemicals in foodstuffs and in both abiotic and biotic environments has justified the present triumvirate of specialized publications in this field:

comprehensive reviews, rapidly published progress reports, and archival documentations. These three publications are integrated and scheduled to provide in international communication the coherency essential for non-duplicative and current progress in a

field as dynamic and complex as environmental contamination and toxicology. Until now there has been no journal or other publication series reserved exclusively for the diversified literature on "toxic" chemicals in our foods, our feeds, our geographical surroundings, our domestic animals, our wild life, and ourselves. Around the world immense efforts and many talents have been mobilized to technical and other evaluations of natures, locales, magnitudes, fates, and toxicology of the persisting residues of these chemicals loosed upon the world. Among the sequelae of this broad new emphasis has been an inescapable need for an articulated set of authoritative publications where one could expect to find the latest important world literature produced by this emerging area of science together with documentation of pertinent ancillary legislation.

Biology and Management of the Floodwater Ecosystem in Rice Fields Int. Rice Res. Inst.

The range of nanomaterial applications has expanded recently from catalysis, electronics, and filtration to therapeutics, diagnostics, agriculture, and food because of unique properties and potentials of different nanoparticles and nanomaterials. Research shows that these exquisite particles can interact with an organism at the cellular, physiological, biochemical, and molecular levels. However, our knowledge of how they affect these changes, selectively or generally, in diverse organism or ecosystems is very limited and far from satisfactory. Data indicate that the biological function largely depends on the shape, size, and surface characteristics of the nanoparticles used besides life cycle stages of an organism. Therefore, this compilation will focus on the body of work carried out by distinguished investigators using diverse nanomaterials and plant and animal species. This book includes specific case studies as well as general review articles highlighting aspects of multilayered interactions, and targets not only research and academic scholars but also the concerned industry and policy makers as well.

Microalgae Springer Science & Business Media
2022-23 TGT/PGT/LT Grade/GIC/DIET/ETC Biology & Botany Vol.-II
Chapter-wise Solved Papers

Plant Genome Diversity Volume 1 Springer Science & Business Media

Fermentative Hydrogen Production: From Fundamentals and Processes is a comprehensive examination of the theoretical and operational aspects of dark fermentative production of hydrogen. The book presents the latest technological developments, analyzes advantages and challenges, and discusses the potential for the maturity of dark fermentation. Part One analyzes the various technologies for hydrogen production, purification, storage, applications, and safety. In Part Two, first to third generation feedstocks are reviewed, as well as co-fermentation and solid and liquid wastes. Part Three examines the typical hydrogen-producing microorganisms in both pure and mixed cultures, along with sequencing techniques, pretreatment considerations, and engineering options. Part Four discusses influencing factors such as operational parameters, promoters, inhibitors, and has a dedicated section on the effects of Iron. Finally, Part Five directly compares dark hydrogen with other hydrogen production technologies through life cycle environmental impact assessments, highlighting bottlenecks and challenges in scaling up these technologies. - Critically reviews the fundamentals and environmental impacts of biological hydrogen production technologies - Evaluates and compares various feedstocks for biohydrogen production, including co-fermentation of different feedstocks - Examines the use of pure and mixed cultures - Provides case studies with real-world applications of the technologies discussed in the book

Agro-Environmental Sustainability Int. Rice Res. Inst.

In the recent past, significant strides have been made in the domain of plant growth regulators (PGRs) and biostimulants. In the sustainable utilization of plant germplasm PGRs and biostimulants play a pivotal role. With a magnified growth rate and less risk of inducing clonal somaclonal variations, PGRs (such as auxins, gibberellins, isoprenoid and aromatic cytokinins, ethylene, and abscisic acid) serve as a boon to plant biologists especially those working with rare endangered and threatened species and medicinal and aromatic plant species. Furthermore, the combined effect of PGRs with LEDs (light-emitting diode) on various aspects of plant development is an area of research gaining attention. The use of biostimulants to promote plant growth, yield and stress tolerance has increasingly gained attention. However, their functional role in the growth and development of plants is not clearly understood.

The Rice Journal CRC Press

Advances in Rice Research for Abiotic Stress Tolerance provides an important guide to recognizing, assessing and addressing the broad range of environmental factors that can inhibit rice yield. As a staple food for nearly half of the world's population, and in light of projected population growth, improving and increasing rice yield is imperative. This book presents current research on abiotic stresses including extreme temperature variance, drought, hypoxia, salinity, heavy metal, nutrient deficiency and toxicity stresses. Going further, it identifies a variety of approaches to alleviate the damaging effects and improving the stress tolerance of rice. Advances in Rice Research for Abiotic Stress Tolerance provides an important reference for those ensuring optimal yields from this globally important food crop. - Covers aspects of abiotic stress, from research, history, practical field problems faced by rice, and the possible remedies to the adverse effects of abiotic stresses - Provides practical insights into a wide range of management and crop improvement practices - Presents a valuable, single-volume sourcebook for rice scientists dealing with agronomy, physiology, molecular biology and biotechnology

Residue Reviews Cambridge University Press

This handbook is devoted to the mass production of microalgae, and in my part, is based on some 10 years of experience in growing and studying microalgal cultures maintained at high population densities under laboratory conditions and in outdoor ponds

Growth Regulators and Biostimulants: Upcoming Opportunities Vandenhoeck & Ruprecht

Nanomaterials in Plants, Algae and Microorganisms: Concepts and Controversies: Volume One discusses the vast amount of nanomaterials that have been released into the environment in a relatively short amount of time. There is a need to understand what the implications to the health of our biota and ecosystems are as the earth is increasingly inundated with these materials. Not all of the effects are negative, but their impacts are increasing exponentially due to their size, quantity and other factors. - Covers the issues of nanoparticles on more simple organisms and their ecosystems - Presents issues that are specific to terrestrial ecosystems - Contains contributions from global experts who help increase understanding at the physiological, biochemical, molecular, and even genomic and proteomic levels - Provides a critical assessment of the progress taking place on this topic and sheds light on future research needs

Bacteria in Agrobiolgy: Crop Ecosystems John Wiley & Sons
Egyptian rice research and training center inaugural; Rice in Egyptian and global agriculture in 2000; New dimensions for genetic improvement in rice; Strategies in rice crop management;

New directions for rice farming systems; Biotechnology and rice improvement; Postharvest technology and by-product utilization for rice; Recent accomplishments in rice research in Egypt.

Naturalists' Directory ... Elsevier

"Algae are mysterious and fascinating organisms that hold great potential for discovery and biotechnology." —Dr. Thierry Tonon, Department of Biology, University of York "Science is a beautiful gift to humanity; we should not distort it." —A.P.J. Abdul Kalam In this book, we emphasize the importance of algal biotechnology as a sustainable platform to replace the conventional fossil-based economy. With this focus, Volume 2 summarizes the up-to-date literature and knowledge and discusses the advances in algal cultivation, genetic improvement, wastewater treatment, resource recovery, commercial operation, and technoeconomic analysis of algal biotechnology. FEATURES Discusses in detail recent developments in algae cultivation and biomass harvesting Provides an overview of genetic engineering and algal-bacteria consortia to improve productivity Presents applications of algae in the area of wastewater treatment and resource recovery Provides case studies and technoeconomic analysis to understand the algal biorefinery Shashi Kant Bhatia, PhD, is an Associate Professor in the Department of Biological Engineering, Konkuk University, Seoul, South Korea. Sanjeet Mehariya, PhD, is a Postdoctoral Researcher at the Department of Chemistry, Umeå University, Umeå, Sweden. Obulisamy Parthiba Karthikeyan, PhD, is a Research Scientist and Lecturer (Adjunct) in the Department

of Civil and Environmental Engineering, South Dakota School of Mines and Technology, Rapid City, South Dakota, USA.

Advances in Rice Research for Abiotic Stress Tolerance
Woodhead Publishing

Heavy Metal Toxicity in Plants: Physiological and Molecular Perspectives highlights the various metal induced impacts on plants and adaptation strategies employed to avoid these stressful conditions. The volume comprise the chapters from the different areas ranging from latest biotechnological to omics approaches. This comprehensive volume emphasizes on the recent updates about the current research on the heavy metal stress in plant biology covering different aspects related to challenges and opportunities in the concerned field. This book is an attempt to bring together researchers who have been engaged in the area of stress signaling, crosstalk and mechanisms of heavy metal stress and share their research findings. Various chapters deal with the topics ranging from sensing and signalling in plants to translational research. The book will provide a direction towards implementation of programs and practices that will enable sustainable production of crops, resilient to environmental heavy metal pollution. Features: The book covers the heavy metal impact on plants in detail. Chapters cover an array of topics and issues related to heavy metal pollution and its management strategies by plants Recent research results and some pointers to future advancements in current topic.