Proceedings of the Indian Science Congress

Food Science and Technology, Second Edition is a comprehensive text and reference book designed to cover all the essential elements of food science and technology, including all core aspects of major food science and technology degree programs being taught worldwide. The book is supported by the International Union of Food Science and Technology and comprises 21 chapters, carefully written in a user-friendly style by 30 eminent industry experts, teachers, and researchers from across the world. All authors are recognized experts in their respective fields, and together represent some of the world's leading universities and international food science and technology organizations. All chapters in this second edition have been fully revised and updated to include all-new examples and pedagogical features (including discussion questions, seminar tasks, web links, and glossary terms). The book is designed with more color to help enhance the content on each page and includes more photos and illustrations to bring the topics to life. Coverage of all the core modules of food science and technology degree programs internationally Crucial information for professionals in the food industry worldwide Chapters written by subject experts, all of whom are internationally respected in their fields A must-have textbook for libraries in universities, food science and technology research institutes, and food companies globally Additional interactive resources on the book's companion website, including multiple choice questions, web links, further reading, and exercises Food Science and Technology, 2nd Edition is an indispensable guide for food science and technology degree programs at the undergraduate and postgraduate level and for university libraries and food research facilities.

Food Science and Technology
Like cereal, pulse processing is one of the oldest and most important of all food processing, which encompasses a diverse range of products. Pulses are widely grown throughout the world and their dietary and economic importance is globally appreciated and well recognized. Although cereal processing has several dedicated text books, no dedicated text on pulse processing is currently available for food science and technology graduates. This book aims to address this oversight, starting with a chapter highlighting the importance of pulses, their production and consumption trends. The coverage in subsequent chapters provides details on the physical and chemical characteristics of pulses, starches, proteins and minor constituents in them and then how they are processed and used. Cooking quality, analysis and the value of the food products will all be examined with the final chapter reviewing the regulatory and legislative requirements for pulses. This book will serve as a comprehensive text book for undergraduate and postgraduate students, educators, industry personnel involved with grain processing and to some extent researchers providing an up-to-date insight into pulse science, processing and technology.

**Postharvest Biology and Technology of Fruits, Vegetables, and Flowers**

Mycotoxins are among the most potent causes of cancer. Ingestion through the diet can pose chronic health risks for both humans and livestock. Death may occur as a result of acute poisoning. Mycotoxins are chemicals produced by fungal molds. These molds grow during production, harvesting and storage of grain, pulses, nuts, roots and other crops. This booklet is directed at the farm situation, providing advice that can be used to avoid mycotoxin contamination before food leaves the farm. The booklet describes what mycotoxins are, how they are produced and how to recognize signs of their presence. It provides advice to enable farmers to minimize the risk from mold contamination while the crop is growing, during harvest and through storage.--Publisher's description.

**Fruit and Vegetables**

**Postharvest Technology**

(Latest - 2013-2018) English Language Topic-wise Chapterwise 40+ Solved Papers - IBPS/SBI Bank PO/ Clerk Prelim & Main Exam Allahabad bank po clerk assistant english manipal previous papers, Andhra bank po clerk assistant english manipal previous papers, Bank of Baroda po clerk assistant english manipal previous papers, Bank of India po clerk assistant english manipal previous papers, Bank of Maharashtra po clerk assistant english manipal previous papers, Canara bank po clerk assistant english manipal previous papers, Dena bank po clerk assistant english manipal previous papers, Indian bank po clerk assistant english manipal previous papers, Corporation bank po clerk assistant english manipal previous papers, Central bank of India po clerk assistant english manipal previous papers, Oriental bank of commerce po clerk assistant english manipal previous papers, Indian overseas bank po clerk assistant english manipal previous papers, Punjab and Sind bank po clerk assistant english manipal previous papers, UCO bank po clerk assistant english manipal previous papers, United bank of India po clerk assistant english manipal previous papers, Union bank po clerk assistant english manipal previous papers, Vijaya bank po clerk assistant english manipal previous papers, ,

**Fresh-Cut Fruits and Vegetables**
An introductory text for students, professionals and others engaged in agricultural engineering and food sciences and technology in the primary processing of cereals, pulses, fruits and vegetables.

**English for SBI PO (Chapterwise Previous MCQs)**

World-wide losses of crops, post-harvest, through microbial action, pests, diseases and other types of spoilage amount to millions of tons every year. This essential handbook is the first in a three-volume series which covers all factors affecting post-harvest quality of all major fruits, vegetables, cereals and other crops. Compiled by members of the world-renowned Natural Resources Institute at the University of Greenwich, Chatham, UK, the comprehensive contents of this landmark publication encourage interactions between each sector of the agricultural community in order to improve food security, food safety and food quality in today’s global atmosphere. Through the carefully compiled and edited chapters, internationally respected authors discuss ways to improve harvest yield and quality, drawing on their many years’ practical experience and the latest research findings, applications and methodologies. Subjects covered include: an introduction to the systems used in post-harvest agricultural processes, physical and biological factors affecting post-harvest commodities, storage issues, pest management, food processing and preservation, food systems, the latest research and assimilation of this work, and current trade and international agreements. An invaluable glossary showing important pests, pathogens and plants is also included. Crop Post-Harvest: Science and Technology Volume 1: Principles and Practice is a must-have reference book which offers the reader an overview of the globalisation of post-harvest science, technology, economics, and the development of the storage and handling of perishable and durable products. Volumes 2 and 3 will go on to explore durables and perishables individually in more detail, with many case studies taken from around the globe. This 3-volume work is the standard handbook and reference for all professionals involved in the harvesting, shipping, storage and processing of crops, including agricultural and plant scientists, food scientists and technologists, microbiologists, plant pathologists, entomologists and all post harvest, shipping and storage consultants. Libraries in all universities and research establishments where these subjects are studied and taught should have multiple copies on their shelves.

**On-farm Mycotoxin Control in Food and Feed Grain**

English for IBPS Clerk (Chapterwise Previous MCQs) IBPS/SBI po previous year solved papers, IBPS/SBI po English solved papers, Po kiran books, arihant books, po reasoning quantitative aptitude, po financial awareness, po practice sets, po Bank po English chapterwise solved papers, Bank po Quantitative aptitude chapterwise solved papers, Bank po reasoning chapterwise solved papers, Solved previous year papers questions mcqs, Online practice sets mock tests papers, Kiran disha arihant chapterwise practice books, Bank reasoning English quantitative aptitude general awareness, Banking puzzles latest new pattern, Bank insurance ibps sbi rrb po clerk assistant, rbi nabard assistant officers, bank po reasoning chapterwise solved papers

**Postharvest Technology and Food Process Engineering**

Based on a unique large-scale data set on teff production and marketing, Ethiopia’s most important cash crop, we study post-harvest losses in rural-urban value chains, specifically between producers and urban retailers in the capital, Addis Ababa. We analyze the structure of the value chain and rely on self-reported
losses by different value chain agents (farmers, wholesale traders, and retailers). We estimate that post-harvest losses in the most prevalent pathway in the rural-
urban value chain, amount to between 2.2 and 3.3 percent of total harvested quantities. The variation in this figure depends on the storage facilities used and on
assumed losses during transport at the farm. These losses are significantly lower than is commonly assumed for staple foods, possibly because of the rather good
storage characteristics of teff due to its low moisture content. These findings, nonetheless, point to the need to gather further solid evidence on post-harvest losses
in staple foods in these settings to ensure appropriate policies and investments.

**Handbook of Food Preservation**

The second edition of this very well-received book, which in its first edition was entitled Postharvest Technology of Fruits and Vegetables, has been welcomed by
the community of postharvest physiologists and technologists who found the first edition of such great use. The book covers, in comprehensive detail, postharvest
physiology as it applies to postharvest quality, technology relating to maturity determination, harvesting, packaging, postharvest treatments, controlled atmosphere
storage, ripening and transportation on a very wide international range of fruits and vegetables. The new edition of this definitive work, which contains many
full colour photographs, provides key practical and commercially-oriented information of great use in helping to ensure that fruit and vegetables reach the
retailer in optimum condition, with the minimum of loss and spoilage. Fruits and vegetables, 2nd edition is essential reading for fruit and vegetable technologists,
food scientists and food technologists, agricultural scientists, commercial growers, shippers and warehousing operatives and personnel within packaging
companies. Researchers and upper level students in food science, food technology, plant and agricultural sciences will find a great deal of use within this
landmark book. All libraries in research establishments and universities where these subjects are studied and taught should have copies readily available for
users. A. K. Thompson was formerly Professor and head of Postharvest Technology, Silsoe College, UK.

**Postharvest Management and Processing Technology**

Post-harvest Management and Processing of Fruits and Vegetables

The Encyclopedia of Food Grains is an in-depth and authoritative reference covering all areas of grain science. Coverage includes everything from the genetics
groats to the commercial, economic and social aspects of this important food source. Also covered are the biology and chemistry of grains, the applied aspects
of grain production and the processing of grains into various food and beverage products. With the paramount role of cereals as a global food source, this
Encyclopedia is sure to become the standard reference work in the field of science. Also available online via ScienceDirect – featuring extensive browsing,
searching, and internal cross-referencing between articles in the work, plus dynamic linking to journal articles and abstract databases, making navigation flexible
and easy. For more information, pricing options and availability visit www.info.sciencedirect.com. Written from an international perspective the Encyclopedia
concentrates on the food uses of grains, but details are also provided about the wider roles of grains well organized and accessible, it is the ideal resource for
students, researchers and professionals seeking an authoritative overview on any particular aspect of grain science This second edition has four print volumes
which provides over 200 articles on food grains includes extensive cross-referencing and "Further Reading" lists at the end of each article for deeper exploration
World health authorities recommend people maximize their protein intake through vegetable sources (such as pulses), and reduce protein intake from animal sources. Increasing vegetable protein intake has been shown to be positively associated with the reduction of both cardiovascular-disease-related mortality and all-cause mortality. Pulse consumption has been shown to improve satiety and metabolism of glucose and lipids, due to their high protein and fiber content, which makes their consumption ideal for preventing and managing obesity. In recent years, there has been increasing demand for pulses and pulse-based products in developed countries. Several large-scale collaborative research projects on pulse products have been initiated by government agencies. Similarly, established multinational food companies have developed pulse product units. Pulses: Processing and Product Development fulfills the need for a comprehensive book on processing and products of pulses. The book addresses a specific pulse with each chapter to meet a wide range of audiences from undergraduate students to consumers.

**Postharvest Technology of Fruits and Vegetables: General concepts and principles**

Best practices for preserving quality and consumer appeal of fresh fruits, vegetables Clarifies calculations for efficient cooling, controlled ripening and storage Present strategies for reducing microbial risks and post-harvest pathologies A comprehensive introduction to established and emergent post-harvest technologies, this text shows how to enhance the value of perishable fruits and vegetable by mitigating the causes of deterioration and spoilage from farm to point of purchase. After investigating the structural, chemical and nutritional properties of fruits and vegetables, the book provides a step-by-step explanation of processing from machine harvesting through handling, ripening technologies, packaging and distribution. Emphasis is placed on ways to collect data needed to monitor quality. Psychrometric principles and their role in cold storage systems are presented along with calculations enabling effective refrigeration and control of transpiration, humidity and gases. The book includes examples and calculations for improving process control and predicting the shelf-life of temperate-climate and tropical fruits and vegetables.

**Agricultural Mechanization in Asia, Africa and Latin America**

A complete guide to the evolving methods by which we may recover by-products and significantly reduce food waste Across the globe, one third of cereals and almost half of all fruits and vegetables go to waste. The cost of such waste – both to economies and to the environment – is a serious and increasing concern within the food industry. If we are to overcome this crisis and move towards a sustainable future, we must do everything possible to utilize innovative new methods of extracting and processing valuable by-products of all kinds. Food Wastes and By-products represents a complete primer to this important and complex process. Edited and written by leading researchers, the text provides essential information on the supply of waste and its composition, identifies foods rich in valuable bioactive compounds, and explores revolutionary methods for creating by-products from fruit, vegetable, and seed waste. Other chapters discuss the
nutraceutical properties of value-added by-products and their uses in the manufacturing of dietary fibers, food flavors, supplements, pectin, and more. This book: Explains how reconstituted by-products can best be used to radically reduce food waste Discusses the potential nutraceutical assets of recovered food waste Covers a broad range of by-product sources, such as mangos, cacao, flaxseed, and spent coffee grounds Describes novel extraction processes and the emerging use of nanotechnology A significant contribution to the field, Food Wastes and By-products is a timely and essential resource for food industry professionals, government agencies and NGOs involved in nutrition, agriculture, and food production, and university instructors and students in related areas.

Food Losses, Sustainable Postharvest and Food Technologies

Contributed articles discussed at national consultations during 2001.

Post Harvest Technology of Cereals, Pulses and Oilseeds

The postharvest management and processing technology of cereals, pulses, oilseeds, fruits and vegetables are under development. The postharvest losses of cereals, pulses, oilseeds are 10-20 per cent but the losses of fruits and vegetables in India vary from 20-30 per cent of the production. If these losses are controlled by using postharvest management and processing technology, the supplies of fresh fruits and vegetables will be increased to the extent of their existing losses. This will help to increase the per capita availability of fruits and vegetables. One object of this book is to organize the scatted information and to deal with the recent development of postharvest management and processing technologies such as processes, operations, designs other aspects such as drying, parboiling, milling, by-products utilization and innovative product development from agricultural raw material. The processing technology, that increases the functionality without changing their fresh like properties has significant role in modern processing industry. This book addresses factors that are involved in maintaining the quality of cereals, pulses, oilseeds, fruits and vegetables after harvest. This book incorporates information on postharvest management, principles involved in preparation of various products as well as methodology involved in home scale as well as industrial processing of cereals, pulses, oilseeds, fruits and vegetables. General terminologies used in the food science and technology are also included in this book. This book has been mainly designed to serve as a text cum reference book for the students in the field of Food Science and Technology, postharvest technology, horticulture, nutrition and professionals in food industries.

Cereals and Pulses

The Handbook of Postharvest Technology presents methods in the manufacture and supply of grains, fruits, vegetables, and spices. It details the physiology, structure, composition, and characteristics of grains and crops. The text covers postharvest technology through processing, handling, drying and milling to storage, packaging, and distribution. Additionally, it examines cooling and preservation techniques used to maintain the quality and the decrease spoilage and withering of agricultural products.

Technology of fruits and vegetable processing
Edited and authored by an international team of respected researchers, this book provides a summary of current research findings related to phytochemical compositions and properties of cereal and pulse crops. It will serve as a timely guide for scientists working in food ingredients, food product research and development, functional foods and nutraceuticals, crop breeding and genetics, post–harvest treatment and processing of cereal grains and pulses, and human nutrition to effect value–added food innovation for health promotion and disease risk reduction.

**Food Security in South Asia**

This enlarged and fully-revised edition of a comprehensive text and reference book examines the principles, process, operation, design, and other aspects of drying, parboiling, storage, milling, and by-products of common cereals, pulses and oilseeds. Different types of machinery used in rice and other grain milling have been examined in detail and special emphasis has been placed on specifications, design, and testing procedures of modern grain dryers, husk fired furnaces, and data on physiothermal and physiochemical properties of cereal grains.

**Biogenic Nano-Particles and their Use in Agro-ecosystems**

**Pulses**

On post harvest management technologies with special reference to India.

**Handbook of Postharvest Technology**

Climate Change and Agricultural Ecosystems explains the causative factors of climate change related to agriculture, soil and plants, and discusses the relevant resulting mitigation process. Agricultural ecosystems include factors from the surrounding areas where agriculture experiences direct or indirect interaction with the plants, animals, and microbes present. Changes in climatic conditions influence all the factors of agricultural ecosystems, which can potentially adversely affect their productivity. This book summarizes the different aspects of vulnerability, adaptation, and amelioration of climate change in respect to plants, crops, soil, and microbes for the sustainability of the agricultural sector and, ultimately, food security for the future. It also focuses on the utilization of information technology for the sustainability of the agricultural sector along with the capacity and adaptability of agricultural societies under climate change. Climate Change and Agricultural Ecosystems incorporates both theoretical and practical aspects, and serves as base line information for future research. This book is a valuable resource for those working in environmental sciences, soil sciences, agricultural microbiology, plant pathology, and agronomy. Covers the role of chemicals fertilizers, environmental deposition, and xenobiotics in climate change Discusses the impact of climate change on plants, soil, microflora, and agricultural ecosystems Explores the mitigation of climate change by sustainable methods Presents the role of computational modelling in climate change mitigation
Postharvest Management and Processing Technology

The processing of food is no longer simple or straightforward, but is now a highly inter-disciplinary science. A number of new techniques have developed to extend shelf-life, minimize risk, protect the environment, and improve functional, sensory, and nutritional properties. The ever-increasing number of food products and preservation techniques cr

Prevention of Post-harvest Food Losses

(Cover of the book)

Cereals, legumes, oilseeds, fruits, and vegetables are the most important food crops in the world, with cereal grains contributing the bulk of food calories and proteins worldwide. Generally, the supply of grains and other food can be enhanced by increasing production and by reducing postharvest losses. While food production has increased significa

Pulse Chemistry and Technology

Post-harvest Rots of Fruits

Postharvest Handling: A Systems Approach introduces a new concept in the handling of fresh fruits and vegetable. Traditional treatments have been either physiologically based with an emphasis on biological tissue or technologically based with an emphasis on storage and handling. This book integrates all processes from production practices through consumer consumption with an emphasis on understanding market forces and providing fresh product that meets consumer expectations. Postharvest physiologists and technologists across the disciplines of agricultural economics, agricultural engineering, food science and horticulture along with handlers of minially-processed products within the fresh produce fruit and vegetable processing industries will find this to be an invaluable source of information. Uses a systems approach that provides a unique perspective on the handling of fresh fruits and vegetables Designed with the applied perspective to complement the more basic perspectives provided in other treatments Provides the integrated, interdisciplinary perspective needed in research to improve the quality of fresh and minimally processed products Emphasizes that the design of handling systems should be market-driven rather than concentrating on narrow specifics

Encyclopedia of Food Grains

Fresh-Cut Fruits and Vegetables: Technologies and Mechanisms for Safety Control covers conventional and emerging technologies in one single source to help
industry professionals maintain and enhance nutritional and sensorial quality of fresh-cut fruits and vegetables from a quality and safety perspective. The book provides available literature on different approaches used in fresh-cut processing to ensure safety and quality. It discusses techniques with the aim of preserving quality and safety in sometimes unpredictable environments. Sanitizers, antioxidants, texturizers, natural additives, forticants, probiotics, edible coatings, active and intelligent packaging are all presented. Both advantages and potential consequences are included to ensure microbial safety, shelf-life stability and preservation of organoleptic and nutritional quality. Industry researchers, professionals and students will all find this resource essential to understand the feasibility and operability of these techniques in modern-day processing to make informed choices. Provides current information on microbial infection, quality preservation, and technology with in-depth discussions on safety mechanisms Presents ways to avoid residue avoidance in packaging and preservation Includes quality issues of microbial degradation and presents solutions for pre-harvest management

Post-harvest Technologies of Fruits & Vegetables

The processing of food is no longer simple or straightforward, but is now a highly inter-disciplinary science. A number of new techniques have developed to extend shelf-life, minimize risk, protect the environment, and improve functional, sensory, and nutritional properties. Since 1999 when the first edition of this book was published, it has facilitated readers' understanding of the methods, technology, and science involved in the manipulation of conventional and newer sophisticated food preservation methods. The Third Edition of the Handbook of Food Preservation provides a basic background in postharvest technology for foods of plant and animal origin, presenting preservation technology of minimally processed foods and hurdle technology or combined methods of preservation. Each chapter compiles the mode of food preservation, basic terminologies, and sequential steps of treatments, including types of equipment required. In addition, chapters present how preservation method affects the products, reaction kinetics and selected prediction models related to food stability, what conditions need be applied for best quality and safety, and applications of these preservation methods in different food products. This book emphasizes practical, cost-effective, and safe strategies for implementing preservation techniques for wide varieties of food products. Features: Includes extensive overview on the postharvest handling and treatments for foods of plants and animal origin Describes comprehensive preservation methods using chemicals and microbes, such as fermentation, antimicrobials, antioxidants, pH-lowering, and nitrite Explains comprehensive preservation by controlling of water, structure and atmosphere, such as water activity, glass transition, state diagram, drying, smoking, edible coating, encapsulation and controlled release Describes preservation methods using conventional heat and other forms of energy, such as microwave, ultrasound, ohmic heating, light, irradiation, pulsed electric field, high pressure, and magnetic field Revised, updated, and expanded with 18 new chapters, the Handbook of Food Preservation, Third Edition, remains the definitive resource on food preservation and is useful for practicing industrial and academic food scientists, technologists, and engineers.

How big are post-harvest losses in Ethiopia?

An increased understanding of the developmental physiology, biochemistry, and molecular biology during early growth, maturation, ripening, and postharvest conditions has improved technologies to maintain the shelf life and quality of fruits, vegetables, and flowers. Postharvest Biology and Technology of Fruits, Vegetables, and Flowers provides a comprehensive introduction to this subject, offering a firm grounding in the basic science and branching out into the technology and practical applications. An authoritative resource on the science and technology of the postharvest sector, this book surveys the body of knowledge
with an emphasis on the recent advances in the field.

Postharvest Handling

Fruits and vegetables are both real nourishment items in their own particular right and key fixings in many handled foods. There has been developing examination on their significance to wellbeing and procedures to protect the healthful and tangible qualities wanted by buyers. This real gathering outlines a portion of the key topics in this current research. Adopting a multidisciplinary strategy, this work examines the fundamentals and late developments in fresh-cut foods grown from the ground handling. It tends to logical advance in the fresh-cut range and talks about the business and the market for these products. They likewise inspect advancements in making sound and alluring items. Utilization of inventive bundling innovation that could enhance item quality and timeframe of realistic usability, new natural product blends with more assortment, consolidation of flavors, or the utilization of steamer sacks for vegetables are only a couple of contemplations that could grow the business sectors of fresh-cut items. With its attention on science, including biochemical, physiological, microbiological, and quality angles, and in addition heath contemplations and customer science, this book gives an account of front line propels and the down to earth utilizations of these advances.

Post Harvest Technology of Cereals, Pulses and Oilseeds


English for Bank Clerk (Chapterwise Previous MCQs)

English for Bank Clerk (Chapterwise Previous MCQs) IBPS/SBI po previous year solved papers, IBPS/SBI po English solved papers, Po kiran books, arihant books, po reasoning quantitative aptitude, po financial awareness, po practice sets, po Bank po English chapterwise solved papers, Bank po Quantitative aptitude chapterwise solved papers, Bank po reasoning chapterwise solved papers, Solved previous year papers questions mcqs, Online practice sets mock tests papers, Kiran disha arihant chapterwise practice books, Bank reasoning English quantitative apti general awareness, Banking puzzles latest new pattern, Bank insurance ibps sib rrb po clerk assistant, rbi nabard assistant officers, bank po reasoning chapterwise solved papers

Crop Post-Harvest; Science and Technology, Volume 1

Southern Economist
The urgent need for sustainability within the food producing industries and agriculture has turned the interest of research to investigate new non-thermal technologies, nanotechnologies and other practices in postharvest treatment of crops and fruits. Subsequently, there is a need for a new guide covering the latest developments in this particular direction. Food Losses, Sustainable Postharvest and Food Technology provides solutions to postharvest treatment technologies. It explores modern non-thermal technologies, focusing on postharvest losses and quality of fresh-cut products. In addition, it discusses the implications for postharvest technology research, policies and practices. It also focuses on the most recent advances in the field, while it explores the potentiality and sustainability of already commercialized processes and products. Aimed at professionals working in the food industry and agriculture, it could also be utilized as a handbook for anyone dealing with sustainability issues of food production in spite of postharvest treatment. Thoroughly explores modern non-thermal technologies in postharvest treatment Discusses the implications for postharvest technology research, policies and practices Analyzes the potentiality and sustainability of already commercialized processes and products

**Handbook of Food Preservation**

**Biological Agriculture & Horticulture**

Several nano-scale devices have emerged that are capable of analysing plant diseases, nutrient deficiencies and any other ailments that may affect food security in agro-ecosystems. It has been envisioned that smart delivery systems can be developed and utilised for better management of agricultural ecosystems. These systems could exhibit beneficial, multi-functional characteristics, which could be used to assess and also control habitat-imposed stresses to crops. Nanoparticle-mediated smart delivery systems can control the delivery of nutrients or bioactive and/or pesticide molecules in plants. It has been suggested that nano-particles in plants might help determine their nutrient status and could also be used as cures in agro-ecosystems. Further, to enhance soil and crop productivity, nanotechnology has been used to create and deliver nano fertilizers, which can be defined as nano-particles that directly help supply nutrients for plant growth and soil productivity. Nano-particles can be absorbed onto clay networks, leading to improved soil health and more efficient nutrient use by crops. Additionally, fertilizer particles can be coated with nano-particles that facilitate slow and steady release of nutrients, reducing loss of nutrients and enhancing their efficiency in agri-crops. Although the use of nanotechnology in agro-ecosystems is still in its early stages and needs to be developed further, nano-particle-mediated delivery systems are promising solutions for the successful management of agri-ecosystems. In this context, the book offers insights into nanotechnology in agro-ecosystems with reference to biogenic nanoparticles. It highlights the:

- occurrence and diversity of Biogenic Nanoparticles
- mechanistic approach involved in the synthesis of biogenic nanoparticles
- synthesis of nanoparticles using photo-activation, and their fate in the soil ecosystem
- potential applications of nanoparticles in agricultural systems
- application and biogenic synthesis of gold nanoparticles and their characterization
- impact of biogenic nanoparticles on biotic stress to plants
- mechanistic approaches involved in the antimicrobial effects and cytotoxicity of biogenic nanoparticles
- role of biogenic nanoparticles in plant diseases management
- relevance of biological synthesized nanoparticles in the longevity of agricultural crops
- design and synthesis of nano-biosensors for monitoring pollutants in water, soil and plant systems
- applications of nanotechnology in agriculture with special refer to soil, water and plant sciences

A useful resource for postgraduate and research students in the field of plant and agricultural sciences, it is also of interest to researchers working in nano and biotechnology.
Food Wastes and By-products

English for SBI PO (Chapterwise Previous MCQs)

Climate Change and Agricultural Ecosystems

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