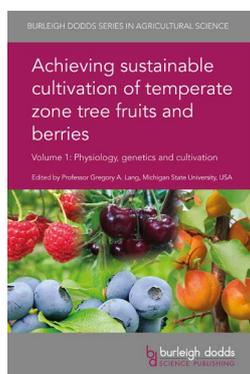


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Achieving sustainable cultivation of temperate zone tree fruits and berries

Volume 1: Physiology, genetics and cultivation

Editor: Professor Gregory A. Lang, Michigan State University, USA

Volume 1 in this collection summarises the wealth of research addressing the challenges facing temperate fruit cultivation, from breeding improved varieties to better crop management and protection methods.

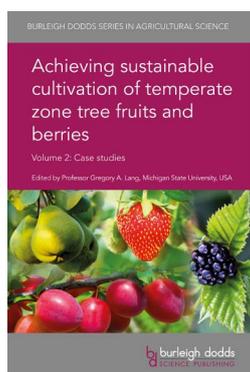
CHAPTER TITLES

Part 1 Physiology and genetics; 1.Advances in understanding fruit tree root–rhizosphere relationships for enhanced plant health; 2.Advances in the development and utilization of rootstocks: a case study for apple; 3.Advances in understanding fruit tree growth; 4.Advances in understanding reproductive development in fruit-bearing plants; 5.Advances in fruit genetics;

Part 2 Optimizing sustainable cultivation and quality;

6.Optimizing production of quality nursery plants for fruit tree cultivation; 7.Optimizing precision in orchard irrigation and nutrient management; 8.Optimizing plant growth, yield and fruit quality with plant bioregulators; 9.Optimizing fruit production efficiencies through mechanization; 10.Optimizing pest management in fruit cultivation;11.Optimizing disease management in fruit cultivation; 12.Pre- and post-harvest strategies to optimize fruit quality and shelf-life; 13.Bioactive/nutraceutical compounds in fruit that optimize human health benefits

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Achieving sustainable cultivation of temperate zone tree fruits and berries

Volume 2: Case studies

Editor: Professor Gregory A. Lang, Michigan State University, USA

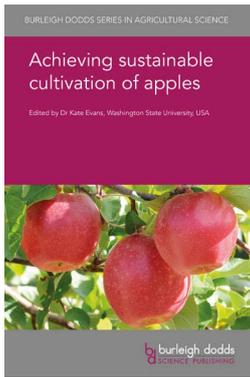
The second volume in this collection reviews advances in breeding and cultivation of key stone fruits (peach, cherry, plum and apricot), pome fruits (pear and apple), and berry fruits (strawberry, raspberry, blackberry and blueberry).

CHAPTER TITLES

Part 1 Stone and pome fruits; 1. Advances and challenges in peach breeding; 2.Advances and challenges in sustainable peach production; 3.Advances and challenges in cherry breeding; 4.Sustainable sweet cherry cultivation: a case study for designing optimized orchard

production systems; 5.Challenges and opportunities in pear breeding; 6.Challenges and opportunities in pear cultivation; 7.Advances and challenges in apple breeding; 8.Advances and challenges in sustainable apple cultivation; 9.Sustainable plum and apricot cultivation; **Part 2 Berry fruits;** 10.Advances and challenges in strawberry genetic improvement; 11.Strawberries: a case study of how evolving market expectations impact sustainability; 12.Advances and challenges in raspberry and blackberry breeding; 13.Advances and challenges in sustainable raspberry/blackberry cultivation; 14.Advances and challenges in blueberry breeding

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Achieving sustainable cultivation of apples

Editor: Dr Kate Evans, Washington State University, USA

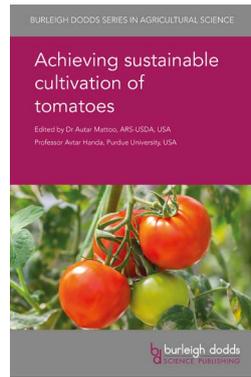
This book reviews our understanding of tree and fruit physiology and how it can be used in breeding better varieties. It also discusses pests and diseases and ways they can be prevented or controlled to make cultivation more productive.

CHAPTER TITLES

Part 1 Plant physiology and breeding;

1.Ensuring the genetic diversity of apples; 2.The apple genome - harbinger of innovation for sustainable apple production; 3.Advances in understanding apple tree growth: rootstocks and planting systems; 4.Advances in understanding apple tree growth: the manipulation of tree growth and development; 5.Advances in understanding flowering and pollination in apple trees; 6.Advances in understanding apple fruit development; 7.Evaluating and improving rootstocks for apple cultivation; 8.Advances in marker-assisted breeding of apples; **Part 2 Cultivation techniques;** 9.Innovations in apple tree cultivation to manage crop load and ripening; 10.Advances in soil and nutrient management in apple cultivation; 11.Mechanization and automation for apple production; 12.Sustainable approaches to control postharvest diseases of apples; 13.Advances in postharvest handling and storage of apples; **Part 3 Diseases and pests;** 14.Pre- and postharvest fungal apple diseases; 15.Management of viruses and virus-like agents affecting apple production; 16.Bacterial diseases affecting apples; 17.Sustainable arthropod management for apples; 18.Advances in pest- and disease-resistant apple varieties; **Part 4 Sustainability;** 19.The economics of apple production; 20.Consumer trends in apple sales; 21.Assessing the environmental impact and sustainability of apple cultivation; 22.Growing organic apples in Europe

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Achieving sustainable cultivation of tomatoes

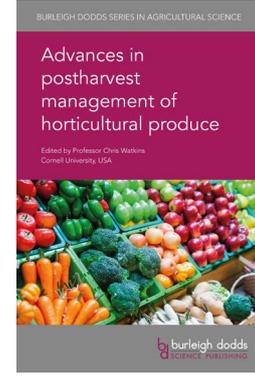
Editors: Dr Autar Mattoo, ARS-USDA, USA and Professor Avtar K. Handa, Purdue University, USA

This book reviews key developments in tomato breeding, including developing improved varieties with desirable traits such as drought or pest resistance. It also discusses ways of improving cultivation techniques as well as pests, diseases and their control.

CHAPTER TITLES

Part 1 Cultivation techniques; 1.Modelling crop growth and yield in tomato cultivation; 2.Optimizing yields in tomato cultivation: maximizing tomato plant use of resources; 3.Improving water and nutrient management in tomato cultivation; 4.Organic greenhouse tomato production; **Part 2 Plant physiology and breeding;** 5.Understanding and improving water-use efficiency and drought resistance in tomato; 6.Ensuring the genetic diversity of tomatoes; 7.Tomato plant responses to biotic and abiotic stress; 8.Developments in tomato breeding: conventional and biotechnology tools; 9.Advances in marker-assisted breeding of tomatoes; 10.Genetic engineering of tomato to improve nutritional quality, resistance to abiotic and biotic stresses, and for non-food applications; 11.Developing tomato varieties with improved flavour; 12.Understanding and improving the shelf life of tomatoes; **Part 3 Diseases, pests and weeds;** 13.Insect-transmitted viral diseases infecting tomato crops; 14.Genetic resistance to viruses in tomato; 15.Bio-ecology of major insect and mite pests of tomato crops in the tropics; 16.Integrated pest management in tomato cultivation; 17.Developing disease-resistant tomato varieties; 18.Integrated weed management in tomato cultivation

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Advances in postharvest management of horticultural produce

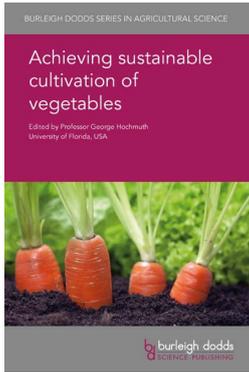
Editor: Professor Chris Watkins, Cornell University, USA

Postharvest losses remain a serious problem in the fresh produce sector. This collection reviews advances in preservation and disinfection, monitoring and management techniques to optimise safety and quality of fresh fruit and vegetables.

CHAPTER TITLES

Part 1 Preservation techniques; 1.Advances in cooling technologies to preserve horticultural produce; 2.Advances in controlled atmosphere storage of horticultural produce; 3.Advances in modified atmosphere and active packaging of horticultural produce; 4.Advances in the use of barrier coatings and additives in the preservation of fresh horticultural produce; **Part 2 Safety management and disinfection techniques;** 5.Post-harvest risk management of biological hazards encountered in horticultural produce; 6.Advances in understanding pathogens contaminating horticultural produce; 7.Advances in postharvest sanitising regimes for horticultural produce; 8.Advances in using heat for disinfection/ disinfection of horticultural produce; 9.Advances in the use of irradiation for the market access of fresh horticultural produce; 10.Advances in the potential use of non-thermal plasma in postharvest treatment of fresh horticultural produce; 11.Advances in the use of ozone in the disinfection of horticultural produce; 12.Advances in the use of biological control agents in the disinfection of horticultural produce; **Part 3 Monitoring and management;** 13.Monitoring postharvest attributes: instrumental techniques for measuring harvest maturity/fruit quality; 14.Postharvest handling of organically produced specialty crops; 15.Smart distribution to maintain shelf life of horticultural produce

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Achieving sustainable cultivation of vegetables

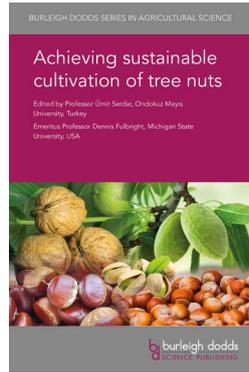
Editor: Emeritus Professor George Hochmuth, University of Florida, USA

This volume summarises the wealth of research on improving sustainability in vegetable cultivation. Part 1 reviews advances in physiology and breeding. Parts 2-3 summarise advances in cultivation and pest management. The final part includes case studies on the breeding and cultivation of key vegetables.

CHAPTER TITLES

Part 1 Physiology and breeding; 1.Advances in understanding vegetable physiology: root systems as the next frontier in improving sustainable vegetable production; 2.Advances in understanding and mitigating vegetable responses to abiotic stress; 3.Developments in breeding vegetables; **Part 2 Cultivation;** 4.Advances in irrigation techniques in vegetable cultivation; 5.Advances in understanding soil health for vegetable cultivation; 6.Advances in greenhouses and other protected structures used for cultivation of vegetables; 7.Developments in soilless/hydroponic cultivation of vegetables; 8.Advances in organic cultivation of vegetables; **Part 3 Pests and pathogens;** 9.Understanding and monitoring diseases of vegetables; 10.Advances in understanding insect pests of vegetables: a case study of sweetpotato weevil; 11.Integrated pest management (IPM) of vegetables: examples of successful deployment; 12.Microbiological safety of vegetable produce: the impact of pre- and post-harvest practices; **Part 4 Case studies;** 13.Advances in carrot breeding; 14.Sustainable carrot product; 15.Advances in lettuce breeding; 16.Advances in lettuce cultivation; 17.Advances in breeding of cucumbers and watermelon; 18.Alternative tillage production systems for cucurbit vegetables; 19.Sustainable production of cabbage on plasticulture; 20.Advances in pea breeding

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Achieving sustainable cultivation of tree nuts

Editors: Professor Ümit Serdar, Ondokuz Mayıs University, Turkey and Emeritus Professor Dennis Fulbright, Michigan State University, USA

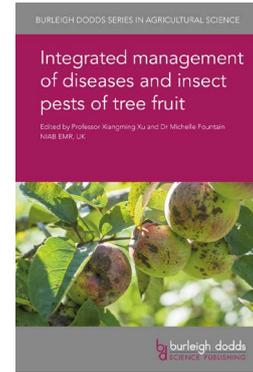
This collection reviews the wealth of research addressing key issues facing the cultivation of tree nuts. Part 1 discusses the health benefits of tree nuts. Part 2 reviews advances in breeding and cultivation of walnuts, almonds, chestnuts, pistachios and hazelnuts.

CHAPTER TITLES

Part 1 Improving health, safety and sustainability; 1.The nutritional and nutraceutical value of walnut; 2.Advances in understanding the nutritional profile and health benefits of almonds; 3.Advances in understanding health benefits of hazelnuts; 4.Uses and health benefits of chestnuts; 5.Advances in understanding health benefits of pistachio; 6.Advances in detecting tree nut allergens; 7.Integrated disease management in tree nut cultivation; 8.Tree nut cultivation, ecosystem services, biodiversity and conservation; **Part 2 Improving individual types of tree nuts;** 9.Towards sustainable production of walnut (*Juglans regia* L.); 10.Advances in cultivation of walnuts; 11.Advances in cultivation of almonds: effects of genotypes, environment and cultural techniques; 12.Advances in breeding of chestnuts; 13.Advances in cultivation of chestnuts; 14.Advances in breeding of pistachio; 15.Advances in cultivation of pistachio; 16.Developing hazelnuts as a sustainable and industrial crop; 17.Advances in breeding of hazelnuts

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Integrated management of diseases and insect pests of tree fruit

Editors: Professor Xiangming Xu and Dr Michelle Fountain, NIAB EMR, UK

This collection reviews advances in understanding key diseases and insect pests of tree fruit. It shows how this understanding can be used to improve integrated disease and pest management techniques.

CHAPTER TITLES

Part 1 Fruit diseases; 1.Epidemiology and management of apple scab; 2.Powdery mildew: biology, epidemiology, and management of *Podosphaera* spp. of tree fruit; 3.Apple replant disease: causes and management; 4.Fungal diseases of fruit: apple cankers in Europe; 5.Fungal diseases of fruit: apple canker in Asia; 6.Brown rot: causes, detection and control of *Monilinia* spp. affecting tree fruit; 7.Apple mosaic virus: biology, epidemiology and detection; 8.Plum pox virus: detection and management; **Part 2 Integrated fruit disease management;** 9.Disease monitoring and decision making in integrated fruit disease management; 10.Breeding fruit cultivars with durable disease resistance; 11.Improving plant propagation methods for fruit disease control; 12.Improving fungicide use in integrated fruit disease management; 13.Use of biocontrol agents in fruit tree disease management; 14.New techniques for managing post-harvest diseases of fruit: physical, chemical and biological agents; **Part 3 Insect pests of fruit;** 15.Insect pests of fruits: aphids; 16.Integrated management of tortricid pests of tree fruit; 17.Integrated management of mite pests of tree fruit; 18.Integrated management of tree fruit insect pests: *Drosophila suzukii* (Spotted Wing *Drosophila*); **Part 4 Integrated management of fruit insect pests;**

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 Series No AS68



Improving integrated pest management in horticulture

Editor: Professor Rosemary Collier, Warwick University, UK

This collection reviews current advances in integrated pest management (IPM) for horticultural crops, including the use of biological control mechanisms, technological developments such as proximal sensors, agronomic practices and physical control.

CHAPTER TITLES

Part 1 Biological control; 1.Advances in biopesticides/bioprotectants for insect control in horticulture; 2.Advances in biopesticides/ bioprotectants for plant disease control in horticulture; 3.Advances in biostimulants as an IPM tool in horticulture; 4.Improving application systems for bioprotectants in IPM programmes in horticulture; **Part 2 Decision support;** 5.Advances in Insect/disease pest monitoring and forecasting in horticulture; 6.Advances in proximal sensors to detect crop health status in horticultural crops; 7.Advances in decision support systems (DSS) for IPM in horticultural crops; **Part 3 Breeding, agronomic practices and physical control;** 8.Advances in developing pest/ disease-resistant varieties of horticultural crops; 9.The use of agronomic practices in IPM programmes in horticulture; 10.Advances in conservation biological control in IPM for horticultural crops; **Part 4 Implementation and case studies;** 11.Assessing the economics of IPM for horticultural crops; 12.Encouraging take up of IPM in horticultural crop production; 13.Practical application of IPM in greenhouses/ protected cultivation; 14.Practical application of IPM in vegetable cultivation (e.g. cucurbits or tomatoes; examples of successful commercial applications of IPM programmes); 15.Practical application of IPM in vegetable cultivation (e.g. control of cabbage root fly in cauliflower); 16.Practical application of IPM in vegetable cultivation (e.g. control of Colorado potato beetle; examples of successful IPM techniques)

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Integrated management of insect pests: Current and future developments

Editors: Professor Marcos Kogan, Oregon State University, USA and Emeritus Professor E. A. Heinrichs, University of Nebraska-Lincoln, USA

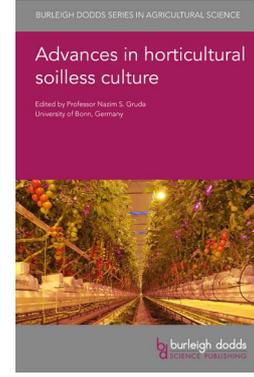
This volume reviews current developments in integrated pest management (IPM), focussing on insect pests. It discusses advances in understanding species and landscape ecology on which IPM is founded, as well as advances in cultural, physical and biological methods of control.

CHAPTER TITLES

Part 1 Ecological foundations of IPM; 1.Foundations of an IPM program: detection, identification, and quantification; 2.Advances in understanding species ecology: phenological and life cycle modeling of insect pests; 3.Understanding agroecosystems and pest management: from chemical control to integrated biodiversity management; 4.Advances in understanding agroecosystems ecology and its applications in integrated pest management; 5.Advances in understanding the ecology of invasive crop insect pests and their impact on IPM; 6.Plant-insect interactions, host-plant resistance, and integrated pest management; **Part 2 Cultural and physical methods in IPM;** 7.Advances in breeding crops resistant to insect pests: rice as a paradigm; 8.The role and use of genetically engineered insect-resistant crops in integrated pest management systems; 9.Biotechnology applications for integrated pest management; 10.Advances in physical control methods in IPM; 11.Robot-enhanced insect pest control: reality or fantasy?; **Part 3 Biological methods in IPM;** 12.Advances in classical biological control to support IPM of perennial agricultural crops; 13.Advances in conservation biological control and habitat management for IPM;

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Advances in horticultural soilless culture

Editor: Professor Nazim S. Gruda, University of Bonn, Germany

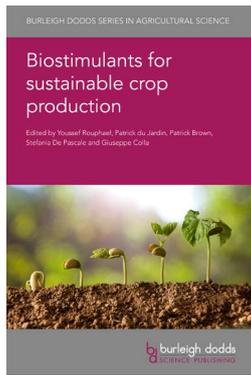
Soilless cultivation techniques have attracted growing attention. This collection reviews current research on optimising substrates for soilless cultivation and assesses recent advances in technologies, such as fertigation systems and process control.

CHAPTER TITLES

1.Soilless culture systems and growing media in horticulture: an overview; Part 1 Materials; 2.Advances in understanding plant root behaviour and rootzone management in soilless culture systems; 3.Developments in inorganic materials, synthetic organic materials and peat in soilless culture systems; 4.Developments in alternative organic materials for growing media in soilless culture systems; 5.Understanding and optimizing the physical properties of growing media for soilless cultivation; 6.Understanding and optimising the chemical properties of growing media for soilless cultivation; 7.Understanding and optimising the biological properties of growing media for soilless cultivation; Part 2 Technologies; 8.Advances in liquid- and solid-medium soilless culture systems; 9.Advances in irrigation/fertigation techniques in greenhouse soilless culture systems (SCS); 10.Advances in nutrient management modelling and nutrient concentration prediction for soilless culture systems; 11.Advanced hydroponics design for plant cultivation in cities; 12.Optimizing product quality in soilless culture systems (SCS); Part 3 Case studies; 13.Advances in soilless cultivation of tomatoes and other fruit vegetables; 14.Advances in soilless culture strawberry production; 15.Advances in soilless culture of ornamentals

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CROP MANAGEMENT



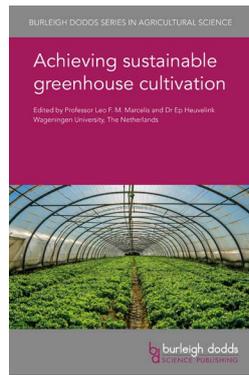
Biostimulants for sustainable crop production

Editors: Youssef Roupheal, University of Naples Federico II, Italy; Patrick du Jardin, University of Liège, Belgium; Patrick Brown, University of California-Davis, USA; Stefania de Pascale, University of Naples Federico II, Italy; and Giuseppe Colla, University of Tuscia, Italy

Part 1 reviews research on ways of evaluating biostimulants. Part 2 surveys the various types of biostimulant, from arbuscular mycorrhizal fungi (AMF) to seaweed extracts. Part 3 discusses advances in their practical application in areas such as enhancing nutrient use efficiency (NUE).

CHAPTER TITLES

Part 1 Introduction and biostimulant characterization; 1.Plant biostimulants: a new paradigm for the sustainable intensification of crops; 2.Bioactive compounds and evaluation of biostimulant activity; **Part 2 Non-microbial and microbial categories of biostimulants;** 3.Humic substances (HS) as plant biostimulants in agriculture; 4.Seaweed extracts as plant biostimulants in agriculture; 5.Biostimulant action of protein hydrolysates on crops; 6.Silicon as a biostimulant in agriculture; 7.Plant growth-promoting rhizobacteria (PGPR) as plant biostimulants in agriculture; 8.Arbuscular mycorrhizal fungi as biostimulants for sustainable crop production; **Part 3 Innovation and practical applications;** 9.Designing and formulating microbial and non-microbial; 10.Plant biostimulants and their influence on nutrient use efficiency (NUE); 11.Combining plant biostimulants and precision agriculture



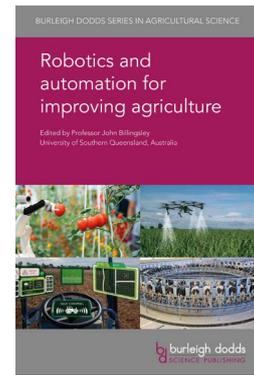
Achieving sustainable greenhouse cultivation

Editors: Professor Leo Marcelis and Dr Ep Heuvelink, Wageningen University, The Netherlands

Greenhouse and other forms of protected cultivation create controlled environments to offset climate change and optimise resource use. This book reviews current research in more efficient climate control and root development to optimise their use.

CHAPTER TITLES

1.Achieving sustainable greenhouse production: present status, recent advances and future developments; **Part 1 Production systems;** 2.Advances in greenhouse design; 3.Advances in screenhouse design and practice for protected cultivation; 4.Aquaponic systems for crop cultivation; 5.Advances in organic greenhouse cultivation; 6.Towards sustainable plant factories with artificial lighting (PFALs): from greenhouses to vertical farms; **Part 2 Crop management;** 7.Understanding crop responses to controlled climates in greenhouses; 8.Developments in growing substrates for greenhouse cultivation; 9.Advances in irrigation management in greenhouse cultivation; 10.Advances in nutrient management in greenhouse cultivation; 11.Advances in pest and disease management in greenhouse cultivation; **Part 3 System management;** 12.Automation and robotics in greenhouses; 13.Models, sensors and decision support systems in greenhouse cultivation; 14.Assessing the impact of environmental factors on the quality of greenhouse produce; 15.Sustainable use of energy in greenhouses; 16.Assessing the environmental impact of greenhouse cultivation



Robotics and automation for improving agriculture

Editor: Professor John Billingsley, University of Southern Queensland, Australia

Robotics has great potential in improving productivity and precision in agriculture. The book reviews advances in technologies such as machine vision and control systems, as well as applications from crop planting, fertilisation, pest and weed management to livestock production.

CHAPTER TITLES

Part 1 Technologies; 1.An overview of machine vision technologies for agricultural robots and automation; 2.Advances in actuation and control in agricultural robots; 3.Advances in communication systems in agricultural robots; 4.Human-robot collaboration in agricultural robots; 5.Global positioning systems (GPS) for agriculture: an overview; **Part 2 Applications;** 6.The use of agricultural robots in crop spraying/fertilizer applications; 7.The use of intelligent/autonomous systems in crop irrigation; 8.The use of agricultural robots in weed management and control; 9.The use of agricultural robots in orchard management; 10.Advances in automated in-field grading of harvested crops; 11.Advances in using robots in forestry operations; 12.Advances in robotic milking; 13.Advances in automating meat processing operations

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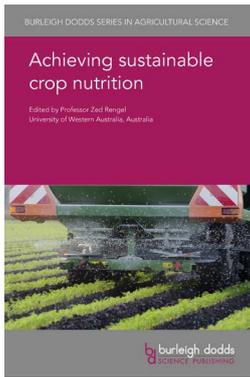
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Series No	AS44



Achieving sustainable crop nutrition

Editor: Professor Zed Rengel, University of Western Australia, Australia

This collection reviews current research on understanding nutrient cycles, the ways crops process nutrients, the environmental effects of fertilizer use and how this understanding can be used to improve nutrient use efficiency for a more resource-efficient and climate-smart agriculture.

CHAPTER TITLES

Part 1 Primary macronutrients: nitrogen;

1. Advances in understanding the nitrogen cycle in crop production; 2. Advances in understanding uptake and utilization of nitrogen in wheat; 3. Advances in optimising nitrogen-use efficiency in crop production;

Part 2 Primary macronutrients: phosphorus;

4. Advances in understanding crop use of phosphorus; 5. Advances in understanding the environmental effects of phosphorus fertilization; 6. Enhancing phosphorus-use efficiency in crop production; **Part 3 Primary macronutrients: potassium;** 7. Advances in understanding the potassium cycle in crop production; 8. Potassium in crop physiology; 9. Advances in optimizing potassium-use efficiency in crop production; **Part 4 Secondary macronutrients and micronutrients;**

10. Secondary macronutrients: advances in understanding calcium cycling in soils, uptake/use by plants and ways of optimizing calcium-use efficiency in crop production; 11. The effect of soil organic matter on plant mineral nutrition; 12. Advances in understanding iron cycling in soils, uptake/use by plants and ways of optimising iron-use efficiency in crop production; 13. Current advances in zinc in soils and plants: implications for zinc efficiency and biofortification studies;

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Genome editing for precision crop breeding

Editor: Dr Matthew R. Willmann, Cornell University, USA

This collection takes stock of the wealth of research on current genome editing techniques and their potential in crop breeding in improving traits such as yield, disease resistance, drought tolerance and nutrient use efficiency.

CHAPTER TITLES

Part 1 Genome editing techniques; 1. Using TALENs for genome editing in plants; 2. Double strand break (DSB) repair pathways in plants and their application in genome engineering; 3. Advances in the generation of insertion-based genome edits in plants; 4. Viruses as vectors for the delivery of gene-editing reagents; 5. Progress in precise and predictable genome editing in plants with base editing; 6. Advances in guide RNA design for editing plant genomes using CRISPR-Cas systems; 7. Advances in assembling gRNA/Cas9 constructs in genome editing of plants; 8. Strategies for CRISPR/Cas9-mediated genome editing: from delivery to production of modified plants; 9. Advances in screening plants for edits and off-targets; 10. Targeted modification of promoters; 11. The regulation of genome-edited crops; **Part 2 Applications;** 12. Genome editing of barley; 13. Genome editing of maize; 14. Genome editing of sorghum; 15. CRISPR/Cas9-mediated genome editing in *Brassica*; 16. Genome editing of tomatoes and other Solanaceae; 17. Genome editing of woody perennial trees

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Advances in measuring soil health

Editor: Professor Wilfred Otten, Cranfield University, UK

This volume begins with a review of advances in measuring soil biological activity. Parts 2 and 3 survey developments in measuring soil physical and chemical properties. The collection concludes by reviewing soil health indicators and decision support systems for improving soil management.

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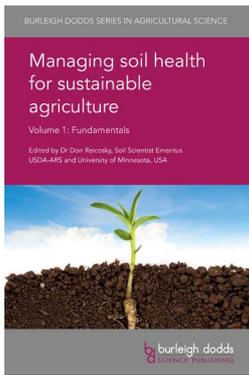
1. Assessing soil health by measuring fauna; 2. Quantifying earthworm community structures as indicators of soil health; 3. Characterisation of fungal communities and functions in agricultural soils; **Part 2 Measuring soil physical and chemical properties;** 4. Advances in visual soil evaluation techniques; 5. Imaging soil structure to measure soil functions and soil health with X-ray computed microtomography; 6. Geophysical methods to assess soil characteristics; 7. Advances in techniques to assess soil erodibility; 8. Advances in measuring mechanical properties of soil in relation to soil health; 9. Advances in near-infrared (NIR) spectroscopy to assess soil health; 10. Spectral mapping of soil organic carbon; **Part 3 From measurement to management;** 11. Developing soil health indicators for improved soil management on farm; 12. Developing decision support systems (DSS) for farm soil and crop management

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Managing soil health for sustainable agriculture

Volume 1: Fundamentals

Editor: Dr Don Reicosky, Soil Scientist Emeritus USDA-ARS and University of Minnesota, USA

There is a growing concern that both intensive agriculture in the developed world and rapid expansion of agriculture in the developing world is damaging soil health. This volume reviews advances in our understanding of soil structure and dynamics which form the foundation for effective soil management.

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Managing soil health for sustainable agriculture

Volume 2: Monitoring and management

Editor: Dr Don Reicosky, Soil Scientist Emeritus USDA-ARS and University of Minnesota, USA

Soil health is critical to successful agriculture. This second volume reviews ways of classifying and measuring soils and their properties. It then discusses ways soil health can be maintained or enhanced to ensure sustainable agricultural production, as well as regional case studies of managing soil health in practice.

CHAPTER TITLES

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Improving soil health

Edited by Professor William Horwath, University of California-Davis, USA

Improving soil health

Editor: Professor William Horwath, University of California-Davis, USA

This collection summarises current research on the effects of different management strategies on the physical, chemical and biological properties of soils. It assesses the viability of these management strategies, including zero tillage and intercropping, as a means for improving crop yield, ecosystem productivity and soil health in general.

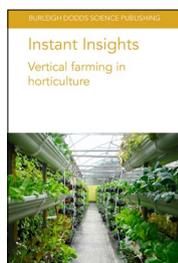
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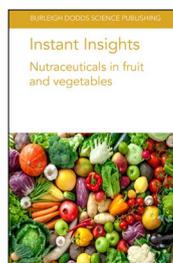
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