Achieving sustainable cultivation of potatoes - Vol.1
Breeding improved varieties
Edited by: Professor Gefu Wang-Pruski, Dalhousie University, Canada

KEY FEATURES

• Reviews current research on potato physiology and genetics
• Discusses advances in breeding and their use to improve particular traits
• Explores key challenges in improving breeding and cultivation in the developing world

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“Sustainable potato cultivation means simultaneously addressing and resolving a complex set of varied and interlinked context-specific constraints. These books promise to rise to the occasion with a talented cast of authors who span the disciplinary spectrum from genetics, pests and diseases, cropping systems all the way through to nutrition and consumer perspectives.” Graham Thiele, Director - CGIAR Research Program on Roots Tubers and Bananas, led by the International Potato Center (CIP), Lima, Peru

Editor biography

Dr Gefu Wang-Pruski is Professor of Molecular Genomics in the Faculty of Agriculture at Dalhousie University, Canada. Her research focuses on potato genetics and its implications for tuber quality and resistance to abiotic and biotic stresses, areas in which she has published widely.
Part 1 Potato production and storage

1. Modelling potato growth: Ilkka Leinonen, Scotland’s Rural College (SRUC), UK; and Hongyan Chen and James A. Taylor, Newcastle University, UK

2. Improving potato cultivation practices: an overview: Vijay Kumar Dua, Sanjay Rawal, Sukhwinder Singh and Jagdev Sharma, ICAR-Central Potato Research Institute, India

3. Improving nutrient management in potato cultivation: Philip J. White, The James Hutton Institute, UK

4. Advances in irrigation management and technology in potato cultivation: experiences from a humid climate: Jerry Knox and Tim Hess, Cranfield University, UK

5. Organic potato cultivation: Thomas F. Döring, Humboldt-Universität zu Berlin and University of Bonn, Germany; and Derek H. Lynch, Dalhousie University, Canada

6. Post-harvest storage of potatoes: Adrian Briddon, Adrian Cunnington and Glyn Harper, Sutton Bridge Crop Storage Research, UK

7. Acrylamide formation in fried potato products and its mitigation: Bruno De Meulenaer, Raquel Medeiros Vinci and Frédéric Mestdagh, Ghent University, Belgium

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9. Bacterial diseases affecting potatoes: M. Jennifer Sjölund, Rachel Kelly, Gerry S. Saddler and David M. Kenyon, Science and Advice for Scottish Agriculture (SASA), UK

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11. Non-infectious disorders affecting potatoes: Andrew P. Robinson, North Dakota State University and University of Minnesota, USA

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13. Potato insect pest management with specific reference to the Pacific Northwest (USA): Stuart Reitz, Oregon State University, USA

Key Features

- Discusses the potential use of organic and conservation agriculture techniques to make cultivation more sustainable
- Discusses key research on improving nutrient and water management
- Provides a comprehensive review of the range of diseases and pests affecting potatoes and how they can be managed

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Editor biography

Dr Stuart Wale is a potato agronomist and researcher with 40 years’ experience for SAC Consulting, a Division of SRUC (Scotland’s Rural College). He was formerly Head of Crop Services at the Scottish Agricultural College (SAC – the forerunner of SRUC). He has published widely on potato diseases in particular, co-editing Diseases, pests and disorders of potatoes: a colour handbook, and is a former President of the British Society of Plant Pathology. Dr Wale also has his own consultancy company: Potato Dynamics Ltd.

Biblio information

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