

BURLEIGH DODDS SERIES IN AGRICULTURAL SCIENCE

BURLEIGH DODDS SERIES IN AGRICULTURAL SCIENCE

Developing smart agri-food supply chains

Using technology to improve safety and quality

Edited by Professor Louise Manning
Royal Agricultural University, UK



bd burleigh dodds
SCIENCE PUBLISHING

AVAILABLE NOW

About the book

This collection provides an authoritative assessment of the current issues challenging the safety of agri-food supply chains and the recent technological developments implemented to improve safety and quality at all levels. Chapters review methods used in tracking and traceability, as well as quality assessment and ensuring transparency in supply chains.

About the editor

Dr Louise Manning is Professor of Agri-Food and Supply Chain Security at the Royal Agricultural University, UK. With over 30 years of experience in both industry and research, Professor Manning is internationally-renowned for her work on food safety and quality, food integrity and food crime.

Developing smart agri-food supply chains: Using technology to improve safety and quality

Available in print and digital formats:

ISBN - print 978-1-78676-749-3

Pages 460

Pub. Date November 2021

Price £150/\$195/€180/C\$255

Series No AS112

Order via our online bookshop at <https://bdspublishing.com>, your usual book supplier, or pass to your librarian.

Enquiries to info@bdspublishing.com

For a complete list of titles visit www.bdspublishing.com

T: +44 (0) 1223 839365

E: info@bdspublishing.com

www.bdspublishing.com

 @bdspublishing

 Burleigh Dodds Science Publishing

bd burleigh dodds
SCIENCE PUBLISHING

Developing smart agri-food supply chains: Using technology to improve safety and quality

Edited by: Dr Louise Manning, Royal Agricultural University, UK

Part 1 Tracking and traceability

1. Advances in traceability systems in agri-food supply chains: *Samantha Islam, University of Cambridge, UK; Louise Manning, Royal Agricultural University, UK; and Jonathan M. Cullen, University of Cambridge, UK*
2. Advances in fingerprint and rapid methods for improved traceability in agri-food supply chains: *Daniel Cozzolino, Heather E. Smyth and Yasmina Sultanbawa, ARC Industrial Transformation Training Centre for Uniquely Australian Foods and Centre for Nutrition and Food Sciences, Queensland Alliance for Agriculture and Food Innovation, The University of Queensland, Australia*
3. Advances in identifying GM plants: current frame of the detection of transgenic GMOs: *Yves Bertheau, INRA Honorary Directeur de recherche, Honorary Scientist at Centre d'Ecologie et des Sciences de la Conservation (CESCO), Muséum national d'Histoire naturelle, Centre National de la Recherche Scientifique, Sorbonne Université, France*
4. Advances in identifying GM plants: toward the routine detection of 'hidden' and 'new' GMOs: *Yves Bertheau, INRA Honorary Directeur de recherche, Honorary Scientist at Centre d'Ecologie et des Sciences de la Conservation (CESCO), Muséum national d'Histoire naturelle, Centre National de la Recherche Scientifique, Sorbonne Université, France*

Part 2 Product integrity and malicious contamination

5. Foodomics: Advances in product testing in agri-food supply chains: *Louise Manning, Royal Agricultural University, UK*
6. Key challenges and developments in non-targeted methods or systems to identify food adulteration: *Sara Erasmus and Saskia van Ruth, Wageningen University & Research, The Netherlands*

7. Advances in identifying and tracking malicious contamination of food in agri-food supply chains: *Marta Marmiroli, University of Parma, Italy; and Jason C. White, The Connecticut Agricultural Experiment Station, USA*
8. The role of technology in crisis management and product recall in food supply chains: *Louise Manning, Royal Agricultural University, UK; and Aleksandra Kowalska, Maria Curie-Skłodowska University, Poland*

Part 3 Safety, quality and smart systems

9. Sampling and statistics in assessment of fresh produce: *K. B. Walsh, Central Queensland University, Australia; and V. A. McGlone and M. Wohlers, The New Zealand Institute for Plant and Food Research Limited, New Zealand*
10. Developing decision support systems for crop yield forecasts: *Lin Liu, University of Minnesota – Twin Cities, USA; and Bruno Basso, Michigan State University, USA*
11. Smart post-harvest technology to maintain quality and safety in fresh produce supply chains: *James Monaghan, Harper Adams University, UK*
12. Advances in techniques for identifying and tracking foreign bodies in agri-food supply chains: *Ilija Djekic, University of Belgrade, Serbia*
13. The use of internet of things (IoT) technology to improve transparency in agri-food supply chains: *Rounaq Nayak, Harper Adams University, UK*
14. Drivers of farmers' usage of digital marketplace platform: evidence from India: *Arpita Agnihotri, Penn State Harrisburg, USA; and Saurabh Bhattacharya, Newcastle University Business School, UK*