Cultivating Resilience: Innovations for Safe, Sustainable and Resilient Food Systems

Cultivating Resilience: Innovations for Safe, Sustainable and Resilient Food Systems will provide a comprehensive exploration of innovations in sustainable and resilient food production, covering important themes such as consumer behaviour, food production, food safety, vertical farming, the bioeconomy, precision agriculture, sustainable supply chains, remote sensing, policy and governance, and future opportunities. Through case studies, research insights, and practical examples, the book aims to inspire and inform stakeholders across the food system about the possibilities and pathways towards a more sustainable and resilient future.

The book will be organised into three major themes:

Innovations for agriculture and food production. Sustainable agriculture: maximising efficiency and minimising environmental impact. Subthemes include:

⇒ The role of big data and digital platforms in farming
⇒ Precision farming techniques: remote sensing, and drones, hyperspectral imaging (disease and pest management)
⇒ Vertical farming: growing upwards for sustainability
⇒ Soil health and sensing

⇒ Urban farming
⇒ Monitoring, measurement and standardisation

Innovations for safe, sustainable and resilient food manufacturing and supply chains. Subthemes include:

⇒ Reducing food waste and losses
⇒ Traceability and transparency
⇒ Supply chains
⇒ The cold food chain
⇒ Biotechnological innovations in food processing
⇒ Standardisation of LCAs
⇒ New foods

Innovations for sustainable consumer behaviour and nutritional security. Sub-themes include:

⇒ Social media analytics
⇒ Sensory analysis
⇒ New production systems
⇒ Consumer behaviour
⇒ Food security
⇒ Food labelling

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Publisher: Emerald
Publication date: 2025

STFC Food Network+

UKRI UK Research and Innovation

Chapter structure

Your chapter should be 2000-3000 words and have a structure as follows:

Chapter Title:

Abstract:
Provide a brief summary of the chapter's main focus, objectives, and key findings. Aim to give readers a clear understanding of what the chapter will cover.

Keywords/Theme:
List relevant keywords that highlight the main topics discussed in the chapter. Which of the book's themes does the chapter cover?

Introduction:
Provide background information on the importance of your chapter to sustainable and resilient agri-food production in the particular theme. Introduce the main objectives and scope of the chapter.

Literature Review:
Briefly review the existing literature, and its implications, in this area.

Recent innovations:
Present key findings from your SFN+ project (if relevant) along with other case studies or examples of initiatives, projects, or collaborations that demonstrate the implementation of innovative practices in this theme.

Implications for policy and practice:
Examine the skills, knowledge, and capacities needed in this area, and the training programmes, educational initiatives, and capacity-building strategies available.

Challenges, Opportunities and Future Research:
Identify key challenges and barriers. Discuss potential solutions and opportunities for overcoming these challenges. Future areas of research.

References and further reading

Please note that we will have some resources to create illustrations, infographics or other images to support you in developing the chapter. Please let us know if you would require these.

If you are interested in writing a chapter, please complete this short Google Form as soon as possible. If accepted we would require the first draft of the chapter (2000-3000 words) to be written by 15 September 2024.

We also plan to hold a drop-in event on 9 July 2-3pm where we will be able to share more information on the book and answer any questions.

For any other queries, please email stfcfoodnetwork@york.ac.uk