

1. Record Nr.	UNINA9911021147503321
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Titolo	Antimicrobial Strategies in the Food System: Updates, Opportunities, Challenges // edited by Dan Li
Pubbl/distr/stampa	Cham : , : Springer Nature Switzerland : , : Imprint : Springer, , 2025
ISBN	3-031-95056-9
Edizione	[1st ed. 2025.]
Descrizione fisica	1 online resource (821 pages)
Disciplina	641.3 664
Soggetti	Food science Food - Microbiology Food - Safety measures Food - Analysis Food security Food Science Food Microbiology Food Safety Food Analysis Food Security
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Part I. Antimicrobial Strategies: reducing hazards and spoilage for a more sustainable food system -- Chapter 1. Emerging and reemerging food microbial hazards -- Chapter 2. Food loss reduction: the pathway towards sustainability -- Part II. What are the options? -- Chapter 3. The physical strategies -- Chapter 4. The (bio)chemical strategies -- Chapter 5. The biological strategies -- Chapter 6. Hurdle technology -- Chapter 7. Delivery systems for antimicrobials -- Part III. Safety at every step -- Chapter 8. Antimicrobial strategies in agriculture -- Chapter 9. Antimicrobial strategies in urban agriculture -- Chapter 10. Antimicrobial strategies in animal husbandry -- Chapter 11. Antimicrobial strategies in food processing and post-processing strategies -- Chapter 12. Antimicrobial packaging systems -- Part IV.

Key to success and future perspectives -- Chapter 13. Perfecting experiment design -- Chapter 14. The opportunities and challenges.

Sommario/riassunto

In 2023, world hunger and food insecurity looms as present as ever. The threat of foodborne illness is also alive and well, as 1 in 10 people fall ill each year from the consumption of contaminated food. Meanwhile, thirty percent of all the food produced on our planet is lost or wasted, due in large part to spoilage. In the face of these realities, as well as those of climate change, population growth, ecosystem degradation and increasing resource scarcity, the dire need for a more sustainable global food system can no longer be ignored. Consumers are not only more invested in sustainability than ever, but also more health conscious. Recent years have thus seen a proliferation of alternative antimicrobial strategies, all aiming to mitigate the risks inherent in developing new production systems while striving for longer-lasting food products. Antimicrobial Strategies in the Food System: Updates, Opportunities, Challenges elucidates the established methods of this rapidly evolving field and introduces cutting-edge technologies such as urban/indoor agriculture. With an emphasis on detailing each step in the chain of food production, the text demonstrates how safety begins with primary production, from agriculture to aquaculture, and remains paramount through to packaging and handling. Developing informed and updated definitions of the terms “natural” and “sustainable,” this book addresses the fragilities of the current food system and establishes possibilities for future research and practice.
