

1. Record Nr.	UNINA9910809021803321
Titolo	Food safety : emerging issues, technologies and systems // edited by Steven C. Ricke, Janet R. Donaldson, Carol A. Phillips
Pubbl/distr/stampa	Amsterdam, [Netherlands] : , : Academic Press, , 2015 ©2015
ISBN	0-12-800404-5 0-12-800245-X
Descrizione fisica	1 online resource (466 p.)
Disciplina	363.1926
Soggetti	Food - Safety measure Food contamination Food industry and trade - Safety measures
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	Front Cover; Food Safety: Emerging Issues, Technologies, and Systems; Copyright; Dedication; Contents; Part: Section 1: Developments in Food Safety Tracking and Traceability; Chapter 1: Global Food Safety Initiative: Implementation and Perspectives; 1. Introduction; 2. How Does a Food Manufacturer Begin the Process of Becoming GFSI Certified?; 3. GFSI Today; 4. Is GFSI Creating a Safer Food Supply?; 5. Does GFSI Reduce the Number of Audits a Food Manufacturer Must Undergo?; 6. What Are the Thresholds That GFSI Must Overcome to Achieve Even More Widespread Acceptance?; 7. How Is GFSI Evolving? ReferencesChapter 2: Computer Systems for Whole-Chain Traceability in Beef Production Systems; 1. Introduction; 2. Benefits and Costs of Traceability in the Beef Industry; 3. Advancement of a WCTS; 4. Summary; References; Chapter 3: Tracking Pathogens in the Environment: Applications to Fresh Produce Production; 1. Introduction; 2. MST Methods Overview; 3. Tracking Foodborne Pathogens: What and Where to Target?; 4. MST Applications in Fresh Produce Production; 4.1. E. coli O157 in the Salinas and San Juan Valleys in California; 4.2. Salmonella in the Fresh Produce Production Environment

4.3. Host-Specific Enteric Viruses in the Leafy Green Supply Chain
4.4. Enterococci in Tomato Production; 5. Limitations and Challenges of MST; 6. Conclusions and Future Directions: Where Do We Go from Here?; References; Chapter 4: Application of Molecular Methods for Traceability of Foodborne Pathogens in Food Safety Systems; 1. Introduction; 2. Complexity of Food Production Systems; 3. Foodborne Pathogens and the Potential Role of Traceability; 4. Discovery of DNA and Development of Genetic Foundational Principles; 5. Genomics and the Evolution of Molecular Biology
6. Emergence of Sequencing as a Practical Tool for Molecular Applications
7. Profiling Foodborne Pathogens Using Gel Electrophoresis; 8. Profiling Foodborne Pathogens Using DNA Sequence-Based Profiling; 9. DNA Microarrays; 10. Genomics and Next Generation Sequencing Technologies; 11. Conclusions and Future Directions; References; Chapter 5: A Descriptive Tool for Tracing Microbiological Contaminations; 1. Introduction; 1.1. History of Biotracing; 1.2. The Outlook for Biotracing; 2. Descriptive Biotracing Tool; 2.1. The Trigger; 2.2. Modeling Practice; 2.2.1. Conceptual model; 2.2.2. Domain
2.2.3. Domain model
2.3. Implementation Aspects; 2.3.1. Core biotrace; 2.3.2. Operational biotrace; 3. Examples of Biotracing Models; 3.1. Conceptual Model: Salmonella in Feed; 3.2. Operational Biotracing: Salmonella in the Pork Slaughterhouse; 3.3. S. aureus Enterotoxins in Pasteurized Milk; 3.4. L. monocytogenes in Cheese; 3.5. Source Attribution of Campylobacter ; 4. Conclusions and Discussion; Acknowledgment; References; Chapter 6: Salmonella and the Potential Role for Methods to Develop Microbial Process Indicators on Chicken Carcasses; 1. Introduction; 2. Commercial Poultry Processing
3. Poultry Processing and Sources of Microbial Contamination

Sommario/riassunto

Food Safety: Emerging Issues, Technologies and Systems offers a systems approach to learning how to understand and address some of the major complex issues that have emerged in the food industry. The book is broad in coverage and provides a foundation for a practical understanding in food safety initiatives and safety rules, how to deal with whole-chain traceability issues, handling complex computer systems and data, foodborne pathogen detection, production and processing compliance issues, safety education, and more. Recent scientific industry developments are written by experts in the field
