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Nota di contenuto	Intelligent Agrifood Chains and Networks; Contents; Foreword; Contributors; 1 Introduction; 1.1 Introduction; 1.2 Scope and structure of this book; 1.3 Conclusions; References; 2 Food and Drink Manufacturing and the Role of ICT; 2.1 Introduction; 2.2 Industry structure; 2.3 Food consumer trends and food legislation; 2.4 Information systems and food manufacturing; 2.5 Food manufacturing and supply chains; 2.6 Conclusion; References; 3 Retail Technologies in the Agrifood Chain; 3.1 Introduction; 3.2 Food retail logistics; 3.3 Information technology in food retail logistics; 3.3.1 Bar codes 3.3.2 Electronic data interchange3.3.3 Data processing and information; 3.4 Conclusions; References; 4 Basic Principles for Effective Warehousing and Distribution of Perishable Goods in the Urban Environment: Current Status, Advanced Technologies and Future Trends; 4.1 Introduction; 4.2 The nature of perishable foods; 4.2.1 Current needs and inefficiencies; 4.2.2 Official authorities and

legislation for perishable foods; 4.3 Warehousing operations; 4.3.1 The role of warehousing; 4.3.2 Types of warehouse facility; 4.3.3 Warehouse operations; 4.3.4 Storage of perishable goods 4.3.5 Storage inefficiencies of perishable foods 4.4 Distribution process; 4.4.1 Goods distribution in urban environments; 4.4.2 Types of urban freight distribution; 4.4.3 Routing factors that affect urban freight distributions; 4.4.4 Dynamic incidents in urban freight distributions; 4.4.5 Current status in urban distribution of perishable goods; 4.4.6 Distribution inefficiencies of perishable foods; 4.5 New technologies in warehousing and distribution; 4.5.1 Technologies for perishable food storage; 4.5.2 Technologies for distribution of perishable food; 4.6 Conclusions and future trends  
 References  
 5 Emerging Footprint Technologies in Agriculture, from Field to Farm Gate; 5.1 Introduction; 5.2 Precision agriculture; 5.3 Robotics in agriculture; 5.4 Fleet management; 5.4.1 Framework; 5.4.2 Algorithmic approaches; 5.5 ICT technologies in agriculture; 5.5.1 ISOBUS system; 5.5.2 Traceability systems based on radio-frequency identification technology; 5.5.3 Wireless sensor networks; References; 6 Telematics for Efficient Transportation and Distribution of Agrifood Products; 6.1 Introduction; 6.2 Technological prerequisites for telematics; 6.2.1 Wireless communications 6.2.2 Positioning systems 6.2.3 Geographical information systems; 6.3 Application of telematics in freight transport and distribution; 6.4 Investing in value of information; 6.5 Distribution of agrifood products: current status and needs; 6.6 The use of telematics in distribution of agrifood products; 6.7 Potential for advanced and value-adding applications; 6.7.1 Vehicle routing and monitoring; 6.7.2 Safety; 6.7.3 Value-added applications; References; 7 RFID: An Emerging Paradigm for the Agrifood Supply Chain; 7.1 Introduction; 7.2 RFID technology; 7.2.1 Overview of RFID technology 7.2.2 Current drawbacks to RFID adoption

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## Sommario/riassunto

Food has a fundamental position in society, ensuring health, happiness and political stability. Consequently, the management of food chains and networks is one of the most important aspects of the modern food industry. Yet food is difficult to handle along long supply chains, with a limited window for storage and handling time, and the risk of spoiling if incorrectly handled or processed. These issues can lead to logistical problems that can severely affect product quality and freshness. Intelligent Agrifood Chains and Networks offers a timely discussion of the current state of food I

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