

1. Record Nr.	UNINA9910130880903321
Titolo	Food and beverage packaging technology [[electronic resource] /] / edited by Richard Coles, Mark Kirwan
Pubbl/distr/stampa	Chichester, West Sussex ; ; Ames, Iowa, : Wiley-Blackwell, 2011
ISBN	1-283-40790-6 9786613407900 1-4443-9216-6 1-4443-9218-2
Edizione	[2nd ed.]
Descrizione fisica	1 online resource (350 p.)
Altri autori (Persone)	KirwanMark J
Disciplina	664.09 664/.09
Soggetti	Food - Packaging Beverages - Packaging Food - Preservation Electronic books.
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 and index.
Nota di contenuto	Food and Beverage Packaging Technology; Contents; Preface; Contributors; 1 Introduction; 1.1 Introduction; 1.2 Packaging developments - an historical and future perspective; 1.3 Role of packaging for enhanced sustainability of food supply; 1.4 Definitions and functions of packaging; 1.5 Packaging strategy; 1.6 Packaging design and development; 1.6.1 The packaging design and development framework; 1.6.2 Packaging specifications and standards; 1.7 Conclusion; References; Websites; 2 Food Biodeterioration and Methods of Preservation; 2.1 Introduction; 2.2 Agents of food biodeterioration 2.2.1 Enzymes2.2.2 Microorganisms; 2.2.3 Non-enzymic biodeterioration; 2.3 Food preservation methods; 2.3.1 High temperatures; 2.3.2 Low temperatures; 2.3.3 Drying and water activity control; 2.3.4 Chemical preservation; 2.3.5 Fermentation; 2.3.6 Modifying the atmosphere; 2.3.7 Other techniques and developments; References; 3 Packaged Product Quality and Shelf Life; 3.1 Introduction; 3.2 Factors affecting product quality and shelf life; 3.3

Chemical/biochemical processes; 3.3.1 Oxidation; 3.3.2 Enzyme activity; 3.4 Microbiological processes  
3.4.1 Examples where packaging is key to maintaining microbiological shelf life  
3.5 Physical and physico-chemical processes; 3.5.1 Physical damage; 3.5.2 Insect damage; 3.5.3 Moisture migration; 3.5.4 Barrier to odour pick-up; 3.5.5 Flavour scalping; 3.6 Migration from packaging to foods; 3.6.1 Migration from plastic packaging; 3.6.2 Migration from other packaging materials; 3.6.3 Factors affecting migration from food contact materials; 3.6.4 Packaging selection to avoid migration and packaging taints; 3.6.5 Methods for monitoring migration; 3.7 Conclusion; References  
4 Logistical Packaging for Food Marketing Systems  
4.1 Introduction; 4.2 Functions of logistical packaging; 4.2.1 Protection; 4.2.2 Utility/productivity; 4.2.3 Communication; 4.3 Logistics' activity-specific and integration issues; 4.3.1 Packaging issues in food processing; 4.3.2 Transport issues; 4.3.3 Warehousing issues; 4.3.4 Retail customer service issues; 4.3.5 Waste issues; 4.3.6 Supply chain integration issues; 4.4 Distribution performance testing; 4.4.1 Shock and vibration testing; 4.4.2 Compression testing; 4.5 Packaging materials and systems; 4.5.1 Corrugated fibreboard boxes  
4.5.2 Shrink bundles  
4.5.3 Reusable totes; 4.5.4 Unitisation; 4.6 Conclusion; References; Further reading; 5 Metal Packaging; 5.1 Overview of market for metal cans; 5.2 Container performance requirements; 5.3 Container designs; 5.4 Raw materials for can-making; 5.4.1 Steel; 5.4.2 Aluminium; 5.4.3 How steel and aluminium are used in metal packaging; 5.4.4 Sustainability - the infinite recycling loop of metal for packaging; 5.5 Can-making processes; 5.5.1 Three-piece welded cans; 5.5.2 Two-piece single drawn and multiple drawn (DRD) cans; 5.5.3 Two-piece drawn and wall ironed (DWI) cans  
5.5.4 Two-piece impact extruded cans

---

Sommario/riassunto

Now in a fully revised and updated second edition, this volume provides a contemporary overview of food processing/packaging technologies. It acquaints the reader with food preservation processes, shelf life and logistical considerations, as well as packaging materials, machines and processes necessary for a wide range of packaging presentations. The new edition addresses environmental and sustainability concerns, and also examines applications of emerging technologies such as RFID and nanotechnology. It is directed at packaging technologists, those involved in the design and development of

---