

| | |
|-------------------------|---|
| 1. Record Nr. | UNINA9910585773103321 |
| Autore | Maheswarappa Naveena B. |
| Titolo | Asiatic water buffalo : a sustainable and healthy red meat source // Naveena B. Maheswarappa, [and five others] |
| Pubbl/distr/stampa | Singapore : , : Springer, , [2022] ©2022 |
| ISBN | 981-19-2619-0 |
| Descrizione fisica | 1 online resource (158 pages) |
| Disciplina | 636.293 |
| Soggetti | Meat industry and trade Indústria cárnia Comerç d'aliments Llibres electrònics |
| Lingua di pubblicazione | Inglese |
| Formato | Materiale a stampa |
| Livello bibliografico | Monografia |
| Nota di bibliografia | Includes bibliographical references and index. |
| Nota di contenuto | Intro -- Foreword -- Preface -- Acknowledgment -- Contents -- About the Authors -- 1: Water Buffalo: Origin, Emergence, and Domestication -- 1.1 Introduction -- 1.2 Buffalo Breeds -- 1.3 Genetic Parameters -- 1.4 Morphological Characters -- 1.5 Growth Traits and Production Potential -- 1.6 Nutritional Requirement -- 1.7 Health Management -- References -- 2: Nutritional Security and Sustainability -- 2.1 Introduction -- 2.2 Contribution Toward Nutritional Security -- 2.3 Sustainability -- 2.4 Success Case of Buffaloes in India -- 2.5 Propelling Effect of Buffalo Meat Exports -- 2.6 Efficient Buffalo Production -- 2.7 Carbon Footprint (GHGs) -- 2.8 Buffalo Production and Contribution to SDGs -- References -- 3: Global Issues and International Trade -- 3.1 Introduction -- 3.2 Buffalo Sector in India and International Trade -- 3.3 Non-tariff Barriers and Restriction on Buffalo Meat Import -- 3.4 Risk-Based Scientific Standards -- 3.5 FMD Virus Survival and pH Implications -- 3.6 OIE Regulations and Non-tariff Barriers -- 3.7 India: Animal Disease Status Certificates from OIE -- References -- 4: Halal Buffalo Meat Production -- 4.1 Introduction -- 4.2 Requirements of ``Halal'' Foods -- 4.3 Prohibited Foods (Haram) -- 4.4 Islamic Perspective on Halal Food Production -- 4.5 |

Context of ``Halal'' Slaughtering -- 4.5.1 The Animal -- 4.5.2 The Slaughterer -- 4.5.3 Slaughtering Tool -- 4.5.4 Slaughtering -- 4.5.5 Best Practices and ``Sunnah'' during Slaughtering -- 4.6 Halal Certification (Jamiat Ulama-I-Hind Halal Trust) -- 4.7 Application of Halal Principles in Meat Supply Chain -- 4.8 Halal Food Analysis -- References -- 5: Buffalo Slaughtering, Dressing, and Carcass Fabrication -- 5.1 Introduction -- 5.2 Pre-slaughter Care -- 5.3 Antemortem Inspection -- 5.4 Buffalo Slaughtering and Dressing -- 5.4.1 Restraining of Buffaloes for Stunning and Bleeding. 5.4.2 Stunning -- 5.4.2.1 Captive Bolt Stunning -- 5.4.2.2 Electrical Stunning -- 5.4.3 Bleeding -- 5.4.4 Electrical Stimulation -- 5.4.5 Dehiding -- 5.4.6 Head Removal -- 5.4.7 Evisceration -- 5.5 Postmortem Inspection -- 5.6 Carcass Trimming -- 5.7 Carcass Washing -- 5.8 Carcass Chilling -- 5.9 Carcass Traits and by-Products -- 5.10 Fabrication of Carcasses -- 5.11 Confirmation, Finish, and Cuts -- 5.12 Grading of Carcasses -- References -- 6: Buffalo Meat Composition and Nutritional Characteristics -- 6.1 Introduction -- 6.2 Composition of Buffalo Meat -- 6.2.1 Moisture -- 6.2.2 Proteins -- 6.2.3 Lipids and Fatty Acid Profile -- 6.2.4 Rich Source of CLA -- 6.2.5 Micro-Nutrients -- 6.2.6 Carbohydrates -- 6.3 Nutritional Characteristics of Buffalo Meat -- 6.4 Meat by-Products as Human Food -- 6.5 Benefits of Buffalo Meat Consumption -- References -- 7: Buffalo Meat Quality and Structure -- 7.1 Introduction -- 7.2 Variation in Meat Quality -- 7.3 Physicochemical Characteristics -- 7.3.1 pH and Water-Holding Capacity -- 7.3.2 Protein Solubility -- 7.3.3 Collagen Content and Solubility -- 7.4 Meat Color -- 7.4.1 Buffalo Meat Color -- 7.5 Meat Texture -- 7.6 Methods of Tenderization -- 7.6.1 Tenderization of Buffalo Meat -- 7.7 Buffalo Meat Structure -- 7.8 Muscle Fiber Diameter and Sarcomere Length -- References -- 8: Buffalo Meat Processing and Value Addition -- 8.1 Introduction -- 8.2 Emulsion Meat Products -- 8.3 Buffalo Fat Replacement and Low-Fat Meat Products -- 8.4 Fermented Meat Products -- 8.5 Restructured Meat Products -- 8.6 Shelf-Stable Meat Products -- 8.7 Enrobed, Smoked, and Other Traditional Meat Products -- 8.8 Sensory Attributes -- References -- 9: Chilling, Freezing, and Other Preservation Methods of Buffalo Meat -- 9.1 Introduction -- 9.2 Preservation of Meat -- 9.2.1 Refrigeration -- 9.2.1.1 Chilling -- 9.2.1.2 Freezing. 9.2.1.3 Superchilling -- 9.2.2 Thermal Processing -- 9.2.3 Drying -- 9.2.4 Curing -- 9.2.4.1 Natural Curing -- 9.2.5 Smoking -- 9.2.5.1 Components of Smoke -- 9.2.6 Irradiation -- 9.2.6.1 Effect of Irradiation on Sensory Properties of Meat -- 9.2.7 High-Pressure Processing -- 9.2.8 Chemical Preservatives/Additives -- 9.3 Packaging -- 9.3.1 Vacuum Packaging -- 9.3.2 Modified Atmosphere Packaging (MAP) -- 9.3.3 Active Packaging -- 9.4 Hurdle Technology -- References -- 10: Buffalo Meat Versus Beef -- 10.1 Introduction -- 10.2 Buffalo: A Climate Smart Animal -- 10.3 Buffalo Meat Versus Cattle Meat -- References -- 11: Quality Assurance and Safety of Buffalo Meat -- 11.1 Introduction -- 11.2 Lipid Oxidation -- 11.3 Microbial Quality -- 11.4 Chemical Residues in Buffalo Meat -- 11.4.1 Residues of Concern in Muscle Foods -- 11.4.2 Pesticides Used for Crop Production -- 11.4.3 Chemicals and Drugs Used in Animal Production -- 11.4.3.1 Antibiotics and Antibacterials -- 11.4.4 Environmental Contaminants -- 11.5 Shelf Life of Buffalo Meat -- References -- 12: Analytical Methods for Authentication of Buffalo Meat -- 12.1 Introduction -- 12.2 Immunological Methods -- 12.2.1 ELISA-Based Methods -- 12.2.2 Lateral Flow Assay -- 12.3 DNA-Based Methods -- 12.4 Proteomics-Based Methods -- 12.5 Traceability in Buffalo Meat Value Chain -- References -- 13: The Way Forward --

