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Nota di contenuto	Pasta and Semolina Technology; Contents; Preface; Contributors; Chapter 1 Introduction; 1.1 What is pasta?; 1.2 Pasta's past; 1.3 Pasta now; 1.4 The market for pasta; 1.5 Nutrition value; References and further reading; Chapter 2 Durum Wheat; 2.1 The origins of wheat; 2.2 The classification and evolution of modern wheats; 2.3 Quality and grain shape; 2.3.1 Factors used to assess quality; 2.3.1.1 Visual scrutiny; 2.3.1.2 Test weight; 2.3.1.3 Blackpoint; 2.3.1.4 Vitreousness; 2.3.1.5 Sprouted grains; 2.3.1.6 Contamination with other wheats; 2.3.1.7 Protein quality and quantity 2.4 Pasta and legislation 2.5 Verification of authenticity; 2.6 Molecular techniques to identify adulteration; 2.6.1 The polymerase chain reaction; 2.6.2 Quantitative PCR and the 'Taqman' chemistry; 2.6.3 Fluorogenic 5'-3' exonuclease assay (Taqman); References and further reading; Appendix: Current commercial T. durum varieties; Chapter 3 Advances in Durum Milling; 3.1 Introduction; 3.2 Basic semolina requirements; 3.2.1 Ash; 3.2.2 Particle size; 3.2.3 Speck count; 3.2.4 Colour; 3.2.5 Moisture; 3.3 Modern durum wheat cleaning plants; 3.3.1 Introduction; 3.3.2 Wheat cleaning principles

3.3.2.1 Removal of impurities; 3.3.2.2 Cleaning of the grain surface; 3.3.2.3 Tempering; 3.3.3 Cleaning plant; 3.3.3.1 First cleaning; 3.3.3.2 Water addition/tempering; 3.3.3.3 Second cleaning; 3.3.4 Removal of ergot; 3.3.5 Summary; 3.4 Particle size requirements of semolina for pasta production; 3.4.1 General considerations; 3.4.2 Traditional semolina particle size; 3.4.2.1 Quality parameters; 3.4.2.2 Mixing times of semolinas with different particle size distributions; 3.4.2.3 Semolina size reduction in the pasta factory; 3.4.2.4 Semolina size reduction in the mill; 3.4.3 Semolina requirements for modern extrusion systems; 3.4.3.1 Advantage of the eight-roller mill system; 3.4.3.2 Application of the eight-roller mill system; 3.4.4 Addition of durum flour; 3.4.4.1 General considerations; 3.4.4.2 Batch blending and mixing; 3.4.4.3 Continuous blending; 3.4.5 New durum mill concept; 3.4.5.1 Flow sheet; 3.4.5.2 Monitoring/quality assurance; 3.4.5.3 Features of the new generation of durum mills; 3.4.5.4 Summary; 3.5 The application of a debranning process to durum wheat milling; 3.5.1 Introduction; 3.5.1.1 The development of debranning; 3.5.1.2 The technical challenge; 3.5.1.3 The challenge of debranning wheat; 3.5.2 Wheat preparation; 3.5.2.1 Wheat cleaning system; 3.5.2.2 Water addition for tempering; 3.5.2.3 Kernel washer and hydrator; 3.5.3 The debranning system; 3.5.3.1 Overview; 3.5.3.2 Preconditioning equipment; 3.5.3.3 Vertical debranning machine; 3.5.3.4 By-product handling; 3.5.4 Milling debranned wheat; 3.5.5 The characteristics of debranned wheat; 3.5.5.1 Ash and falling number; 3.5.5.2 Semolina ash: what is the significance?; 3.5.5.3 Germ removal with debranning; 3.5.5.4 The removal of microbiological and other contamination with debranning

Sommario/riassunto

Over the last few years the technologies employed in the production of dry pasta and semolina have changed dramatically. This highly practical book examines these changes and gives commercially relevant information to the reader in the areas of durum wheat, semolina production, pasta mixing and extrusion, shape design and quality assurance. Written principally for food technologists working with pasta as an end product or as an ingredient, this book is also an essential reference source for academic, research and teaching institutions.
