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Altri autori (Persone)	NewmanC. Walter
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Nota di contenuto	BARLEY FOR FOOD AND HEALTH; CONTENTS; Preface; ACKNOWLEDGMENTS; 1 Barley History: Relationship of Humans and Barley Through the Ages; Introduction; Domestication and Use of Barley for Food; The Origin of Cultivated Barley; The Fertile Crescent; North Africa; Southern Europe; Southwestern, Central, and Northern Europe; East Asia; North and South America; Summary; 2 Barley: Taxonomy, Morphology, and Anatomy; Introduction; Taxonomy; Morphology and Anatomy; Roots; Tillers; Leaves; Spike; Kernels; Summary; 3 Barley Biotechnology: Breeding and Transgenics; Introduction; Improving the Barley Crop Traditional Barley Breeding Conventional Barley Breeding; Mutations; Haploids; Interspecific and Intergeneric Crosses; Molecular Markers; Barley Transgenics; Why Transgenics?; Delivery Systems; Target Tissues; In Vitro Culture; Altered Traits; Transgenic Barley Risk: True or Imagined?; Summary; 4 Barley: Genetics and Nutrient Composition; Introduction; Genetics and Nutrient Composition; Carbohydrates; Starch; Sugars; Nonstarch Polysaccharides; Proteins; Lipids; Vitamins; Minerals; Phytochemicals; Genetics and Physical Characteristics; Row

Type; Kernel Size, Kernel Weight, and Volume Weight  
Kernel UniformitySummary; 5 Barley Processing: Methods and Product  
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Malting; Secondary Processing; Extrusion; Steel Cutting; Flaking;  
Infrared Processing; Separation Techniques; Air Classification; Sieving;  
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Cookies; Evaluation of Pasta  
Sensory EvaluationSummary; 7 Barley Food Product Research and  
Development; Introduction; Health Claims for Barley; Barley as a  
Functional Food; -Glucan: The Challenge of Barley as Food; Yeast  
Breads Made with Barley Flour; Flatbreads Made with Barley Flour;  
Chemically Leavened Baked Products Made with Barley Flour; Pasta  
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Barley Foods; Introduction; Barley and Heart Disease  
Mechanisms Responsible for Cholesterol EffectsHuman Clinical Studies;  
Extracted -Glucan as a Food Additive; Glycemic Response to  
Carbohydrate Consumption; Effect of Barley on Carbohydrate  
Metabolism; Studies Using Subjects with Diabetes; Starch  
Amylose/Amylopectin Ratio and Resistant Starch; Effects of Food Form  
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Current Status of Global Barley Production and Utilization; Barley  
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10 Barley Foods: Selected Traditional Barley Recipes

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Sommario/riassunto

With coverage of chemistry, genetics, and molecular breeding, this book provides comprehensive and current information on barley types, composition, characteristics, processing techniques, and products. Its emphasis on the nutritional and health benefits of barley is especially timely with the FDA's 2005 confirmation of barley's cholesterol-lowering properties. This resource discusses barley's role in breads and related products, and reviews its health benefits, biotechnology, and breeding applications. This is the definitive resource for cereal chemists, food scientists, nutritionists, grain

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