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Altri autori (Persone)	NickhilC HaghiA. K
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Soggetti	Food science Food security Food - Safety measures Food - Analysis Chemistry Food Engineering Food Science Food Security Food Safety Food Chemistry
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Nota di contenuto	Introduction to Food and Dairy Process Engineering -- Principles of Food and Dairy Safety-Challenges and Opportunities -- Quality Assurance and Control in Food and Dairy Products -- Fluid Mechanics in Food and Dairy Processing -- Heat Transfer and Pasteurization Techniques -- Separation Technologies in Food and Dairy Process Engineering Filtration and Centrifugation Methods -- Food and Dairy Fermentation Processes -- Food and Dairy Freezing and Cooling Techniques -- Mixing, Blending, and Emulsification in Processing -- Zero Hunger: Food and Dairy Packaging Preservation -- Advances in Food and Dairy Processing Technologies -- Food and Dairy By-Products

Utilization-Successful Cases -- Enzymes and Biotechnology in Food Processing -- Recent Developments in Sensory Assessment and Consumer Preference Techniques -- Food and Dairy Product Shelf Life Extension -- Regulatory Compliance and Food Safety Standards -- Novel extraction technology in food processing -- Future Trends in Food and Dairy Process Engineering and Business-A Comprehensive Exploration.

Sommario/riassunto

This book offers a comprehensive exploration of food and dairy process engineering, catering to a diverse audience ranging from students and budding engineers to seasoned professionals in the food industry. It delves into a wide array of crucial topics, each meticulously crafted to provide valuable insights into the complex world of food and dairy processing. Engineering Solutions for Sustainable Food and Dairy Production begins by addressing the paramount concern of safety in the food industry, tackling challenges and opportunities in ensuring the quality and integrity of food products. The book promotes an understanding of the sources of dairy products and the practices involved in dairy farming, which are pivotal for producing high-quality dairy goods. Raw material management and quality control techniques are covered in full, as are fluid mechanics and heat transfer and pasteurization techniques. Fermentation processes are explored in-depth, showcasing their significance in the creation of various food products. Separation technologies such as filtration and centrifugation techniques are studied and evaporation and concentration techniques are discussed which enables the production of condensed and powdered items. A full chapter is dedicated to food and dairy freezing and cooling techniques, focusing on maintaining the correct temperature and various freezing and cooling methods. For researchers in search of the most updated technologies and techniques for sustainable food and dairy processing, this text functions as a singular source.
