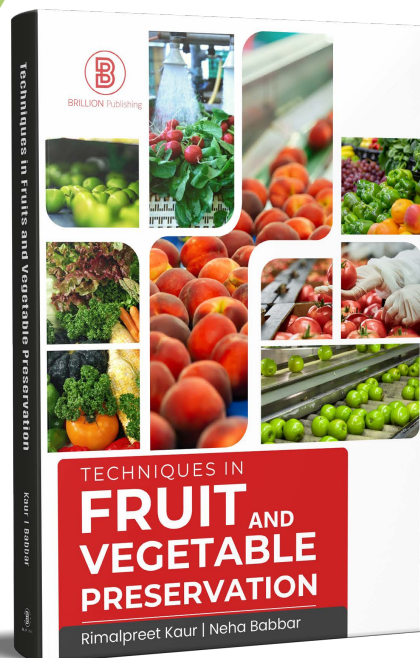




BRILLION Publishing

Techniques in Fruits and Vegetable Preservation



The book **“Techniques in Fruits and Vegetable Preservation”** is a comprehensive and insightful resource that explores the science, methods, and technologies involved in the preservation and value addition of fruits and vegetables. It covers a wide array of processing techniques including traditional methods like drying, canning, freezing, fermentation, and pickling, as well as modern and emerging non-thermal technologies such as high-pressure processing, pulsed electric fields, and minimal processing. Each method is explained with scientific clarity, focusing on how factors like temperature, moisture content, enzymatic activity, and microbial load affect the quality, safety, and shelf life of processed products. The book begins with the selection and preparation of raw materials, emphasizing the importance of maturity indices, sorting, grading, washing, peeling, and blanching. It then delves into core processing operations, detailing their principles, equipment used, and quality control parameters. Packaging plays a critical role in the preservation process, and the book highlights advancements in packaging materials and techniques like vacuum and modified atmosphere packaging. Special attention is given to nutritional retention, sensory attributes, and food safety standards, including hygiene practices and regulatory compliance. The book also includes chapters on waste management and by-product utilization, promoting sustainability in processing industries. Richly supported by diagrams, process flowcharts, and real-world examples, it provides practical insights alongside theoretical knowledge. This book is an essential reference for students, researchers, academicians, and professionals in food science, postharvest technology, and horticulture. It equips readers with the knowledge and skills required to develop safe, high-quality, and marketable fruit and vegetable-based products while ensuring minimal losses and environmental impact. With its balanced focus on both fundamental concepts and practical applications, **“Techniques in Fruits and Vegetable Processing”** stands out as a valuable tool in the advancement of agro-processing industries.

Features

The book **“Techniques in Fruits and Vegetable Preservation”** is a well-structured guide that presents detailed knowledge of both conventional and modern methods used in the processing and preservation of fruits and vegetables. It bridges the gap between theoretical concepts and practical applications, helping readers understand how to retain nutritional quality, enhance shelf life, and add value to fresh produce. Designed for students, researchers, and industry professionals, the book offers a scientific yet accessible approach to the evolving field of food processing.

- This book includes a wide range of techniques such as canning, drying, freezing, fermentation, high-pressure processing, and pulsed electric fields—explained with clear scientific principles and step-by-step procedures.
- Emphasizes factors affecting product quality, nutritional retention, food safety standards, and the importance of sustainable practices like waste utilization and eco-friendly processing.
- Enriched with flowcharts, diagrams, tables, and real-world case examples that aid understanding and application of theoretical knowledge in actual processing environments.

Rimalpreet Kaur | Neha Babbar

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