

Preface

Generation of competent human resources in the area of Food Science and Technology in terms of R&D and manufacture is of paramount importance in the 21st century. India as a developing country needs a strong platform in terms of academics and professionals for food processing industry to ensure food security and food safety in the years to come. Indigenous efforts in the subject area are scanty and there is an urgent need to have adequate literature which can be highly useful for students and professionals in this emerging area of Food Science and Technology. This book is a sincere effort towards the same as a compilation of chapters addressing various preservation and processing technologies in addition to packaging, food laws and regulations. The authors of individual chapters are experts in their respective areas with significant contributions in their fields. The book lays emphasis on conventional technologies inclusive of various unit operations besides certain futuristic technologies such as infrared, non-thermal and minimal processing technologies. The chapters are aimed at imparting basics of the subject besides the latest trends in the evolution of technologies and important industrial practices. Besides the technological aspects, adequate emphasis has also been laid on the quality aspects and adequate knowledge input required for a student or professional in Food Science and Technology. This humble effort is aimed at developing an overall expertise in food processing to address various academic and commercial issues. The book contains 16 chapters addressing various important aspects such as unit operations, thermal processing, hurdle technology preservation, cold preservation, dehydration, freezing, and advanced thermal techniques such as infrared and microwaves besides non-thermal aspects such as high pressure and pulsed electric field processing as well as γ -irradiation. State-of-art subject areas such as functional foods could be an added flavour as the global food market has ample potential in the area of functional foods. Food packaging and food laws are important in commercializing processed foods as well as fresh produce and these areas require due emphasis to make the book more comprehensive. As the country is at the threshold of emerging as a dominating global player in food processing, the present book is expected to contribute adequately in ensuring development of competent technical manpower to support both the industry and academia.

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