



## Recent Trends in Food Processing The Global Scenario

This edited book on "Recent Trends in Food Processing - The Global Scenario" provides advances in all major aspects of food processing, in an easy accessible manner. Demand drivers like enhanced sensory quality, safety, nutrition, health, economy of food products by consumers, improves food processing operations. This book entails the application of scientific principles to maintain the natural quality of food by avoiding decay caused by micro-organisms, enzymes in the food or environmental factors such as heat, moisture and sunlight to preserve the food. Food safety has emerged as a global challenge to meet the requirements of all consumers with respect to safety and its nutritional quality. Further processing into high value-added products garners greater revenue for the producer.

The food processing industry wants currently robotics that can meet the unique performance needs of the industry. Equipment designers are turning more to "smart" processing systems. There is a greater computer integration on the manufacturing floor. This provides better control of processing information. As consumer demand continues to increase, the need for increasingly complex equipment will increase as well. These changes will increase the need for employees who are skilled in the operation and maintenance of this equipment. As the equipment becomes more complex, so will the skills required to operate this equipment become more complex.

Preparing for these challenges will provide great opportunity. This book will be a platform for Food Scientists, Food Engineers and Agricultural Scientist along with the Policy makers, Industrialists, Progressive farmers and Entrepreneurs to discuss various issues related to food processing, safety and food security.



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Recent Trends in Food Processing  
The Global Scenario  
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## Recent Trends in Food Processing The Global Scenario

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Continued on 2<sup>nd</sup> flap



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*Edited by :*

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## Foreword

I am pleased to know that the Institute of Food and Dairy Technology in Association with Department of Food Science and Technology, University of Nebraska, Lincoln, USA is organizing an International Workshop on "Recent Trends in Food Processing - The Global Scenario" at Institute of Food and Dairy Technology Campus, Koduvalli, Chennai during 8-9 December, 2011 as part of World Veterinary Year Celebrations by Tamil Nadu Veterinary and Animal Sciences University. India is the world's second largest producer of food. The total food production in India is likely to double in the next ten years and there is an opportunity for large investments in food and food processing technologies, skills and equipment, especially in areas of agriculture commodities, milk, meat, poultry, egg and fish. Another major issue is food quality and food safety. FAO is advocating a new approach to ensure that the food we eat is free from food-borne hazards-everything from pesticides and industrial chemicals, through to unwanted bacteria and contaminants-the "Food Chain Approach".

On this occasion, I congratulate the organizers of this International workshop as it would provide an appropriate platform to scientists, technocrats and students from different parts of the country and abroad to discuss topics like application of nano technology in food processing, development in extrusion technology, current requirements for retort approval and safety norms, which are matters of utmost importance to the processing industry.

I am sure this gathering will address the current status and future scenario of food processing in India and will come out with suitable guidelines for the food processing sector in the country.

I wish this International workshop a grand success.

Place : Chennai

  
**(R. PRABAKARAN)**



## Preface

Food processing is the process of adding value to the agricultural, horticultural, livestock and fisheries produce by using various techniques like grading, sorting, packaging, etc., which prolongs the shelf-life of food products. It leads to diversification of agricultural activities, improves value addition opportunities and create surplus for export of agro-food products. The basic approach in this direction are to elucidate the chemical, physical and microbiological properties of foods, and to apply this knowledge to the efficient utilization of raw ingredients for economical development and improvement of processes and packaging, leading to products of high quality and nutritional value. It is the key to the conversion of raw materials into a wide variety of safe, wholesome, nutritious and economical food products, thus contributing in an important manner to the well being, standard of living and progress of humanity.

The food processing industry is a sunrise sector that has gained prominence in recent years. Increased availability of raw materials, changing lifestyles and widening of policies have given a considerable push to the industry's growth. This sector is among the few that serves as a vital link between the agriculture and different industrial segments of the economy. Strengthening this link is of critical importance to improve the value of agricultural produce; to ensure remunerative prices to farmers and at the same time create favourable demand for agricultural products in the world market. A thrust to the food processing sector implies significant development of the agriculture sector and ensures value addition to it.

This book profoundly covers the modern methods of food processing, recent advances in food processing equipments, food quality, safety and packaging, environment and industry perspective, which would result in a productive experience for researchers and students and foster development in food processing industry at national and global level.

**Editors**

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