Consumers demand for high quality foods that are fresh tasting and nutritious have created considerable interest in the development of new food-processing techniques. Consumers are also increasingly becoming aware of nutritional security and about the food safety. Food processing is food preservation, which involves maintaining the high quality properties of the food as long as possible. R&D effort by DFRL has helped in developing technologies to extend the shelf-life of a variety of traditional food products of Indian dietary matching the main frame palate/taste of India. Some of these simple technologies could be easily taken up by small and medium scale industries.

India is the largest producer of coconuts. Coconut’s endosperm contains a large quantity of clear liquid, called ‘coconut water’. The water of tender coconut (TCW) is a sterile, nutritious and a thirst quenching natural health drink with gentle taste & flavor. It is rich in potassium and other minerals. After harvesting, the quality of tender coconut water in nuts is found to undergo deterioration after 72 h. The bulkiness of coconuts adds transportation cost.

Developments in non-thermal technologies have been advanced by DFRL in an attempt to meet the challenge of producing safe processed food of a high quality. These techniques have been adopted for liquid products like coconut sap, tender coconut water and mature coconut water to achieve sterility with extended shelf life. DFRL, Mysore, in collaboration with the Coconut Development Board (CDB), Ministry of Agriculture, Kochi, has developed innovative state-of-the-art technology to preserve and stabilise TCW in flexible polymeric pouches and aluminum cans. The use of mild heat (Pasteurization) treatment and a bio-preservative are keys to the promising technology that is ideal for domestic as well as export markets. CDB can play a big role in opening up technology transfer mechanisms for foreign vendors. A diverse range of other food products has been prepared from coconut that satisfy the human nutritional and health requirements. Tender coconut water has been blended with different fruit pulps, i.e., lemon, mango, pineapple, blue grapes, apple, pomegranate, etc., to increase the palatability as plain tender coconut water has bland taste. Other value added products developed from coconut includes Beverage, Yoghurt, Jam, Jelly, Chips, Spread, Milk, Spray dried coconut milk powder, Coconut cream, Copra, Neera, Coconut chutney, Dehydrated coconut chutney, Nata-de-coco, Vinegar, Virgin Coconut Oil (VCO) and VCO meal based products, etc.

This presentation will give a holistic view point about the concept of Value-addition in different segments of food industry and the gradual shift from traditional technologies to novel modern technologies used for coconut product’s quality enhancement and their future potential.