Innovative Technologies for Coconut Processing
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Abstract

India is the third largest coconut growing nation in the world. In order to develop the products from coconut and to improve the economy of this sector, Coconut Development Board is extending financial assistance for research projects to Central Food Technological Research Institutes (CFTRI) for developing technologies. With the financial support of Coconut Development Board, CFTRI has developed the processes for production of coconut milk powder, coconut dietary fiber, virgin coconut oil, coconut protein powder and many more.

There is an ever-increasing scope for producing diversified products from the by-products of coconut industry. Such products will ensure better prize for the farmer, better products to consumer and more effective cost of production to the industry, introduction and adoption of modern technologies in coconut processing sector to provide technical impetus for transformation of traditional coconut dependent rural economy into a vibrant commercially viable economy, development of technologies/ process for consumer based products from by-products in coconut processing in order to increase the consumption of coconut and exploitation of by-products in coconut processing for production of value added, shelf-stable, convenient products are the major objectives of the research and development works.

In this presentation, the highlights of R&D work carried out at CFTRI in this regard with latest developments are presented. A process for the production of
tender coconut beverage (Coconut lassi) and mature coconut-water concentrate (Coconut honey) has been developed. A process for the production of coconut spread based on mature coconut-water concentrate and coconut dietary fiber has been developed and patented. Efforts are made to develop the dry mixes. Innovative approaches such as differential partitioning studies of coconut whey proteins using aqueous two-phase extraction have been conducted. Even efficient option of ultrafiltration in combination with spray drying was employed as a method of preparation of coconut whey protein powder. Formulations are prepared for coconut chutney powder. Considerable demand is there for the fractionation of coconut oil/VCO especially for separation of medium chain Triglycerides (MCTs). Innovative methods such as supercritical fluid extraction (SFE) and fractional crystallization will be very handy in this regard.