The Convergent Innovation Webinar Series Pulse Program: Inventing "One-World" Food Solutions for Sustainable Development and Affordable Healthcare

Nutritional Superiority and Utilization of Pulses in Products



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5:00 PM CET / 7:00 PM ETH

Abstract

Co-chairs & Moderators: Gordon Bacon (CEO, Pulse Canada) & Laurette Dubé (MCCHE)

Pulses are an indispensable part of traditional Indian dietaries, so much so that a meal is not complete without a dish or two prepared using pulses. A variety of pulses are used, both in whole and decorticated form in curries, snacks, breakfast dishes, and sweets along with many other ingredients. Pulses provide much needed protein in predominantly vegetarian diets and complement the protein quality of cereals. Nutritionally, pulses are good sources of protein, carbohydrates, vitamins, minerals and dietary fiber. Thermal treatments or cooking improves the digestibility of pulses and destroys anti-nutritional factors. Pre-processing treatments like germination and fermentation are known to specifically impart many health benefits by way of enhancing bioavailability of nutrients from legumes. Our studies support these observations. The presentation will discuss two aspects of pulses namely, effect of processing on nutritional value of pulses and utilization of pulses in product formulation. Processing methods would include some of our work on dehulling, germination and cooking. In product formulation, our work has been very vast, and would focus on many traditional and novel pulse based products which, have been studied for value addition, fortification, development of instant mixes, treatments to lower fat absorption in deep fried products, etc. The products have been evaluated for various quality parameters such as; nutritional composition, mineral bioavailability, starch and protein digestibility, shelf stability, sensory acceptability and antioxidant properties.

