

'Hildur Lassi': A Probiotic Fermented Food with Oats and Milk

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Abstract

The world situation can be observed from many different perspectives. Here in this context we can see it as a coin with two sides. On one side we can see high income population suffering from welfare related health problems like obesity, diabetes, cardiovascular diseases and cancer which are shown to be related to a dietary habit describing high intake of food with very high content of fat and easily digestible carbohydrates. On the other side of the coin we can see low income population suffering from poverty related health problems due to lack of food in general and lack of essential nutrients in particular. In both these cases life style and socio-economic factors do play an important role. Most of the low-income people of the world depend on agriculture and food production for their livelihood. At the same time agro-food sector continues to be of low productivity due to lack of efficient post-harvest handling and or lack of innovative food processing facilities. The value addition is very low and farmers in many parts of the world remain to be suppliers of raw un-processed food products.

In this project, an effort has been made to connect low income sector to high income sector by adding innovative food design with the help of new knowledge in food science and nutrition. The result is a probiotic fermented functional food product which contains oats and milk called Hildur Lassi. Oat (*Avena sativa*) is known to contain large amount of dietary fibre that give beneficial physiological effects. It is also a source of good protein, minerals, antioxidants and vitamins. The soluble fibre β -glucan is claimed to have a cholesterol lowering effect according to the Food and Drug Administration (USA) as well as the European Food Safety Authority (EFSA) and it may be used to control and maintain a beneficial plasma lipid profile. Cow milk is well known to be a highly nutritious food item. The insulinotropic feature of some milk proteins are reported to be useful in tailoring foods for regulation of blood glucose level in individuals with type 2 diabetes. Given the nutritive composition and natural buffering capacity, fermented milk is considered best carrier of probiotics. Positive health effects of fermented foods and especially of those with probiotic microorganisms and prebiotic food components are reported in many recent.

Based on our research, we have designed and developed a new fermented functional food product using nutritious components from oats, cow's milk and probiotic microorganisms as the principal ingredients. The beverage will be further improved to suit the consumer by adding colour and flavour from chosen fruits.

Keywords: Hildur Lassi, probiotic, prebiotic, flavour, diabetes
