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Physico-Chemical and Sensory Properties of Yogurt Processed from Cow's Milk and Soymilk alone and in Combination

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Consumption of fermented soymilk was reported to be beneficial to human intestinal health. Fermented soymilk, unlike fermented milk or yogurt drinks, contains no lactose or cholesterol. In addition, soy protein was found to have a greater antioxidative ability in preventing lipid oxidation, compared to casein. In this study, yogurt was processed by inoculation of cow's milk and soymilk used alone and in combination (ratio 1/1 v/v) with freeze-dried culture of Lactobacillus bulgaricus and Streptococcus thermophilus.Three samples from each processed yogurt were evaluated for physico-chemical and organoleptic properties using a commercial yogurt as control.The pH values of yogurt samples ranged from 4.65±0.03 in cow's milk yogurt, 4.60±0.05 in soymilk yogurt, and 4.64± 0.01 in the mix. Soymilk yogurt was low in Dornic acidity (81.66±1°D). Fat and total dry extract were highest in cow's milk yogurt: 31±1 g/l and 106.6±0.2 g/l, respectively. There was significant difference ($P < 0.05$) in the protein content between cow's milk yogurt (3.1±0.2 g/l) and soymilk yogurt (3.47±0.01 g/l). Soymilk yogurt and cow's milk yogurt and their mix compared favorably well with commercial yogurt in overall acceptability.

Soymilk yogurt alone or in combination with cow's milk yogurt can be adopted as substitute to cow's milk yogurt especially by the low income earners due to its cheaper raw materials, and as protein supplement at household level. It can also be processed with simple processing technology.

Key words: Cow's milk, soymilk, yogurt, mix, physico-chemical properties, sensory properties

Biography:

Amrouche has is expertise in evaluation and passion in improving the health and wellbeing of consumers via new food ingredient combination. His experimental model based on new dairy products creates new pathways for improving health combining animal product (cow milk) and plant products (soymilk).He has built this model after years of experience in research, evaluation, teaching and administration in industry and education institutions.