

Production of acidophilus milk enriched with purees from colored sweetpotato (*Ipomoea batatas* Linn.) varieties

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ABSTRACT

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Probiotic foods and drinks are becoming more popular nowadays. Probiotic foods are foods that contain health-promoting microorganisms. The beneficial effects of probiotics may be mediated by a direct antagonistic effect against specific groups of organisms, resulting in a decrease in their metabolism or by stimulation of immunity.

Acidophilus milk enriched with purees from *kinampay* and RC-2000 sweetpotato varieties was developed. Acidophilus milk is a probiotic drink, which is a product of milk fermentation by the bacteria *Lactobacillus acidophilus*. The fermented milk has been reported to have therapeutic value for suppressing toxin-producing organisms in the intestine of human.

The sugar level and product acceptability of the developed product was evaluated through sensory evaluation, and a proximate composition of the product was determined by proximate analysis.

It was found out that at 1% and 10% levels of inocula of the starter culture, the change in Total Titratable Acidity (TTA) of acidophilus milk was the same, hence, 1% inoculum was found practical in the production of acidophilus milk. Findings from previous experiments show that the maximum number of viable cells can be maintained at TTA and pH of 0.65% and 4.7 respectively (Reed, 1982). Basing on that research finding, those acidity values were used as the target optimum conditions. The optimum

incubation time was found to be at 16 hours at 37°C for plain acidophilus milk and 14 hours for acidophilus milk enriched with *kinampay* and RC-2000 purees before incubation.

The developed acidophilus milk was found to be more acceptable using 6.25% sugar level.

The addition of sweetpotato puree to the acidophilus milk generally improved the sensory qualities and proximate composition of the product. It reduced the moisture content and increased the ash and protein contents of the product.

Keywords: acidophilus milk, probiotics, sweetpotato puree, fermented milk

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