

DEVELOPMENT OF SOUR SOP PULP
(*Annona muricata*) INCORPORATED FERMENTED
SWEET CREAM BUTTERMILK BEVERAGE

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Abstract

Sweet Cream Buttermilk is an important dairy by-product left behind after removal of butter during churning of unripen Cream. It consists with substances considered potentially beneficial for human health especially the MFGM proteins. Soursop fruit is an underutilized, nutritional and healthy fruit available in Sri Lanka. Hence this study was focused to develop Sweet Cream Buttermilk beverage by incorporating Soursop pulp. Initially, buttermilk base was prepared by standardizing incubation time and pH until desired incubation time, pH (4 hr/pH 4.62) and coagulum texture was achieved. Beverage was prepared by incorporating different combinations of Soursop pulp and sugar levels. Five point hedonic scale was used to determine the best Soursop pulp and sugar incorporation levels. Through the sensory evaluation with Freidman test, 13% Soursop pulp and 12% sugar incorporation level was selected as the best ingredient combination for the final product. Final product was evaluated for physicochemical, microbiological and organoleptic properties during a period of 13 days. Addition of preservatives (Pottasium sorbate) has no effect on *E.coli* and Coliform count during the storage period. Yeast and Mould count was significantly different between two samples ($p < 0.05$). pH was decreased with the storage time and acidity was increased slightly with the storage time (TA- 0.6 ± 0.01 to 0.64 ± 0.01 and pH- 4.53 ± 0.05 to 4.4 ± 0.05). Gelatin was an effective stabilizer for the fermented beverage as syneresis was not observed during the storage period. From the result of the quality assessment, fermented soursop buttermilk beverage could be stored at 4°C for more than 13 days. Soursop pulp incorporated sweet cream buttermilk beverage was having a low cost and low fat content compared to market available fermented milk based fermented beverages.