

## Effect of Different Preservatives on the Shelf-life of Flavored Lassi

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### Abstract

*Lassi* is a low fat product that appeals the diet-conscious consumers. It contains probiotic bacteria and sweeteners or flavors. A shelf-life of *lassi* product is longer than that of milk but its availability is still limited. The purpose of this study is to find out how to extend the shelf-life of *lassi*. The study was carried out at Island Dairies Pvt (Ltd), Kegalle and Uva wellassa University, Badulla. At first, a series of preliminary trials were conducted to find the most preferable flavored *lassi*. There were five types of flavors (E 1520); mint salted, mint sweet, Rose, cardamom and pineapple. By using fifty untrained panelists the most preferable flavor was selected. Two preservatives; nisin (0.02%) and potassium sorbate (0.15%) were added. *Lassi* mixture was prepared by using buffalo curd, sugar, water, salt and permitted flavors following Tamime and Robinson (2007) with slight modification. The curd and water was mixed then sugar, salt flavor and preservatives were added. Then the *lassi* was blended, homogenized, pasteurized and cooled. The shelf-life was assessed on sensory, physiochemical and microbiological parameters. The selected product was used to measure fat, protein, titrable acidity, total plate count and *E.coli*. Non parametric data were analyzed using Friedman non-parametric test by MINITAB 15 software and parametric data were analyzed by one way ANOVA (CRD) using SAS 9.1 software. Significant means of treatments were separated using the Least Significant Difference ( $P < 0.05$ ) test (LSD). According to the sensory evaluation, the pineapple flavored *lassi* having a significant difference ( $P < 0.05$ ) among five samples regarding appearance, color, texture, mouth feel and overall acceptability was selected as the best treatment. *Lassi* had a low fat content and the cost of product was Rs 30 per 180 mL. Potassium sorbate scored better than the nisin with comparing pH, Total acidity, Total plate count and cost up to 21<sup>st</sup> day of storage at 4 °C.

Keywords: *Lassi*, flavors, preservative, nisin, potassium sorbate