

Studies on Preparation of *Dahi* Prepared from Sweet Corn Milk Blended with Buffalo Milk

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Introduction

Fermentation has been an ideal technology to preserve milk from time immemorial. The health benefits of dairy products are the result of biologically active components that are present in the native milk and also, due to their suitably modulated activities produced through the action of bacteria, in the fermented or sour milk products. The use of cereals with high protein content plays a significant role as a partial substitute for milk solids. To be healthy and active, the diet must be adequate in quantity and quality to meet the energy level and nutrient requirement. Addition of cereal protein enhances the nutritive value and open new avenues in value addition. An increase in solids not fat content contribute to an increase in protein per cent which in turn contribute to the refinement in the taste of newly developed product with improved consistency, viscosity and reduced whey separation.

Methodology

For preparation of *dahi* buffalo milk was blended with sweet corn milk to obtain treatments combinations T₁ (100 + 0), T₂ (80 + 20), T₃ (70 + 30) and T₄ (60 + 40) (buffalo milk + sweet corn milk) respectively. Respectively *Dahi* samples were prepared by using standard *dahi* culture (NCDC 167) @ 2 per cent and incubated at 37°C/8 h. The *dahi* was packed and stored at refrigerated temperature and subjected for physic-chemical analysis.

Result and Discussion

In this study, fat content were found to be 7.2, 5.6, 4.2 and 3.8 per cent; protein 3.5, 3.3, 3.1 and 3.0 per cent; total sugar 4.8, 4.9, 5.0 and 6.0 per cent; moisture 86.90, 87.94, 88.60 and 89.69 per cent; ash 0.72, 0.71, 0.70 and 0.70 per cent; and total solids 13.10, 12.06, 11.40 and 10.31 per cent for T₁, T₂, T₃, and T₄ respectively. The whey drainage was 5.20, 5.40, 6.12 and 7.17 ml/100 ml of *dahi*, acidity 0.66, 0.70, 0.72 and 0.73 per cent, pH 4.33, 4.31, 4.20, 4.13 and curd tension 16.92, 24.92, 22.50 and 20.02g for treatment T₀, T₁, T₂ and T₃, respectively. It was observed that as the blending of sweet corn milk increased, there was decrease in fat, protein, ash, total solids and curd tension while moisture, total sugar and whey drainage increased. The acceptable *dahi* can be prepared by blending 30 per cent sweet corn milk and 70 per cent buffalo milk.

Conclusion

The blending of 30 per cent sweet corn milk in buffalo milk for *dahi* preparation is fairly acceptable, comparatively cheaper and adaptable as far as processing technology is concerned.

