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RESEARCH PAPER

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Effect of different combinations of buffalo milk and soymilk on the quality of Kulfi

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ABSTRACT

Soymilk is used in kulfi to reduce the cost and to make the kulfi more acceptable to the consumer. Considering the availability of soybean on cheaper rate and to divert soybean towards other purposes, the present investigations was undertaken in order to find out the effect of the different levels of soymilk on the quality of kulfi. The standard techniques of preparation of soymilk and kulfi were used at three different levels of soybean for replacing buffalo milk *i.e.* 25%, 50 %, and 75%. The kulfi samples were analyzed for various parameters *viz.,* pH, acidity, melting time and sensory properties like flavour, body and texture, melting quality , palatability and cost structure. Increase in the replacement of buffalo milk by soymilk had no effect on pH, acidity and melting quality of kulfi. Consumer's acceptability was also determined on the basis of various methods. The highest score for flavour (9.88) and palatability (10) were recorded in treatment T2 having 25% buffalo milk replacement by soymilk. Addition of soymilk up to 25% had no effect on body and texture and melting quality of kulfi, but cost of production decreased as level of replacement of soymilk increased.

KEY WORDS : Kulfi, Soymilk, Buffalo milk

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INTRODUCTION

Milk is an ideal food for both infants and patients. Taking into consideration the growing population of India, low milk production from Indian animals, increasing demand for milk and milk products, which resulted in the shortage and higher cost of milk, so it is absolutely necessary to conserve the available milk through the application of modern technology. Indian scientists have diverted their work to find out a suitable substitute for milk to overcome the above problem under Indian conditions. Processed soymilk and its products partly solve this problem. Milk is partly substituted by soymilk for the preparation of milk products will not only favour low cost but will help in maintaining the nutritional status of the products. Soymilk is cheapest source of beneficial alkaline in nature vegetable protein and essential amino acids. It contains 1.60 to 2.30 per cent fat,0.90 to 1.50 per cent carbohydrates and 6.50 to 8.00 per cent total solids. Soymilk has also medicinal and therapeutic values. It stimulates growth and is highly digestible and found quite effective in curing gastric troubles. It is highly energetic food and an effective brain tonic and helpful for persons suffering from diabetes, blood pressure, kidney troubles, general weakness and diseases related to malnutrition in children and pregnant women.

Kulfi is a popular indigenous frozen product where as ice-cream is western frozen product. Composition of kulfi mix was variable and it is manufactured on small scale by crude indigenous method. Kulfi prepared from 15 % soymilk and skim milk solids in the ratios of 50 :50 was very much appreciated. Out of 150 consumers, 127 liked it very much (Rajor and Vani, 1990). In India, there is little work done on kulfi and hence meagre literature on kulfi is available especially on partly substitution of buffalo milk with soymilk. Therefore, the present investigation was undertaken with the main objective to investigate the acceptable level of soymilk and to find out whether substituting buffalo milk by soymilk is economical.

MATERIALS AND METHODS

The present investigation was undertaken in the

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