

Utilization of sapota pulp in the preparation of Shrikhand

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ABSTRACT

The study was conducted at Department of Animal Husbandry and Dairying at Dr. Panjabrao Deshmukh Krishi Vidyapeeth, Akola. An effort was made to produce a novel fermented milk product. Further efforts were made to standardize the optimum level of sapota pulp in the preparation of Shrikhand by sensory evaluation and to study its economics. Shrikhand was prepared from cow milk chakka with constant level of sugar (40 per cent by weight of chakka) blended with varying levels of sapota pulp at the rate of quantity of chakka i.e. 5 % (T₂), 10 % (T₃), 15% (T₄) and 20 % (T₅). Treatment T₃ (93.72) showed highest overall acceptability than other treatments. Fat content of Shrikhand, treatment T₁ (8.05 per cent) showed highest fat content among all the treatments. Total solid content of Shrikhand was highest in T₁ (65.65 per cent) and lowest in T₅ (54.31 per cent). For protein content treatment T₁ (6.15 per cent) was significantly higher than rest of the treatments. Titratable acidity was highest in T₁ (1.86 per cent) and lowest in T₅ (1.69 per cent). For sugar content, treatment T₁ (41.11 per cent) showed highest sugar over rest of the treatments. Cost of production of 1 kg Shrikhand was lowest in T₅ (Rs. 66.96) and highest in T₁ (Rs. 68.80). Increase level of sapota pulp showed slight decrease in cost of production of Shrikhand.

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Key Words : Sapota pulp, Blending, Shrikhand, Chemical composition, Sensory evaluation, Cost of production

INTRODUCTION

Cultured dairy products find a very predominant position in the Indian cultures. These products were traditionally prepared at small scale in each household. Now the commercial production of some of these products has become a big active industry. Around 9 per cent of total milk produced in India is converted into fermented milk product and this sector is showing an annual growth rate of more than 20 per cent per annum (Singh, 2006).

The role of fermented milk products in human nutrition has been well documented. Fermented milk products are rich in proteins, vitamins and minerals. They are reported to be effective in treatment of many diseases like constipation, diarrhea, acidity, gastro-enteritis, gingivitis, tumor genesis, hypercholesterolemia etc. (Patel and Ranz Scheuen, 1997). Fermented milk products like Shrikhand have some advantage over fluid milk because of more keeping quality, digestibility and palatability.

Sapota is considered as energy producing fruit and having high nutritive value. It contains higher percentage of vitamin C. Sapota fruit is rich in carbohydrates and provides good amount of proteins and minerals like calcium, phosphorus and iron. The fruits are tonic, enrich blood,

increase muscular strength, cooling, sedative to the heart and relieve vomiting. Gopalan *et al.* (1977) recorded composition of ripened Sapota fruit as moisture 73.7 per cent, carbohydrate 21.4 per cent, fibre 2.6 per cent, fat 1.1 per cent, protein 0.7 per cent, mineral 0.5 per cent, vitamin C 6 mg, thiamine 0.02 mg, riboflavin 0.03 mg, niacin 0.02 mg and mineral content calcium 28 mg, phosphorus 27 mg and iron 2 mg.

Looking to above diversified benefits of sapota pulp and nutritive value of fermented milk, sapota pulp Shrikhand was prepared from cow milk with various treatment combinations. Recently there has been an increasing trend to fortify the product with fruit pulp or juice. Fruits are considered good source of mineral and vitamins and hence supplementation of Shrikhand with fruit will not only improve its flavour but also its overall nutritional quality and the taste.

METHODOLOGY

Collection of ingredients :

Fresh, clean, whole cow milk was procured from Livestock Instructional Farm of Department of Animal Husbandry and Dairying, Dr. Panjabrao Deshmukh Krishi