ECONOMICS OF PREPAREATION OF MANGO BURFI

C.Y. Shelke, S.V. Baswade, B.C. Andhare, R.S. Mule and S.B. Adangale
Department of Animal Husbandry and Dairy Science, College of Agriculture, Marathwada Agricultural University, Parbhani - 431 402, India

ABSTRACT

Burfi is the most popular khoa based sweet all over India. Different varieties of burfi like nut burfi, chocolate burfi, coconut burfi, saffron burfi, rava burfi etc. are very much liked by the Indian population. Shelf life of burfi is more as compared to other milk sweets due to it’s lower moisture content and higher total solids. In present investigation the cost structure for mango burfi was studied. The lowest cost was observed for plain burfi as compared to mango burfi with different mango pulp level. As the level of the mango pulp increase the cost of mango burfi also increased.

INTRODUCTION

Milk and milk products occupy a very prominent place in the food sector and economy of India, which has obtained the distinction of becoming the largest milk producing country in the world. In 2005, India produced 92.1 million tonnes of milk (Anonymous, 2005).

Burfi has been favoured as one of the most popular khoa based sweets all over India. The unique adaptability of khoa in terms of its flavour, body and texture to blend with a wide range of food adjuncts has permitted development of an impressive array of burfi varieties. Among these, fruit, nut, chocolate, coconut, saffron and rava burfi are popular. These food adjuncts may be artfully used singly or in innovative combinations to delight a gourmet. The artful ingenuity of the sweet maker in creating special qualities in burfi fetches higher consumer prices. The burfi is prepared with cashew nut as katli (a water thin slice), almond, pistachio, coconut, mango, orange, mul apple, bottle gourd and potato. The sublime manifestation of burfi is launj, made with pistachio. It is soft and chewy, resembling halwa-burfi.

India ranks first in mango cultivation and production, largest area under mango cultivation is in Uttar Pradesh and Andhra Pradesh. Indian has shared about 56% of total world production of mango (Anonymous, 2005).

From the nutritional point of view the mango is the rich source of vitamin A almost as rich as butter also it has fair amount of vitamin C and good source of potassium. The carotenoid pigments preserving as a flavouring ingredient in the dairy product is the best way to overcome the perishable, quality of these fruits.

Mango pulp has firmness and good keeping quality therefore, it is used for making products like mango burfi, mango juice concentrates pure, frozen mango, mango in brine, mango papad, mango milk shake, mango beverage mango jam, mango syrup, mango powder. Some products prepared from mango pulp are mango yoghurt mango beverage (Chauhan et al., 1998).

It is seen from the literature available that very less study was recorded on mango fruit pulp burfi. The product may have longer keeping quality due to high total solids content and slightly acidic nature of the product which enhance the flavour and lower the cost of production. Therefore, it is expected that there may be greater demand and consumer’s appeal to the newly formulated product.

MATERIAL AND METHODS

During the course of present investigation on the studies on “Economics of preparation of mango burfi”. The material used and methods employed are delineated hereunder.

2.2 Preparation of Mango pulp

Mango pulp: Approximately the required amounts of mango fruits were taken.

2.3 Method: Fully ripe mangoes were washed thoroughly, peeled, cut into pieces and stones removed manually. The cut pieces were fed into the pulper having a sieve size of 1/16 inch. The extracted pulp was heated for 3 min. at 60°C, then cooled and kept in refrigerator until use (less than a month) as per the procedure described by Amba Dan and Adsule (1979).

Mango burfi: Mango burfi samples were prepared in the laboratory adopting the standard procedure for respective treatment combination.

2.4 Treatment details:

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>T₀</td>
<td>Plain burfi</td>
</tr>
<tr>
<td>T₁</td>
<td>5 per cent mango pulp + 95 per cent weight of khoa</td>
</tr>
<tr>
<td>T₂</td>
<td>10 per cent mango pulp + 90 per cent weight of khoa</td>
</tr>
<tr>
<td>T₃</td>
<td>15 per cent mango pulp + 85 per cent weight of khoa</td>
</tr>
</tbody>
</table>

Sugar level at the rate of 30 per cent by weight of khoa was common in all the treatment.

2.5 Preparation of Mango burfi: Mango burfi was prepared in the laboratory by adopting the standard procedure using buffalo milk.

Two litres of buffalo milk standardized to 6 per cent fat was taken in an iron karahi and heated on gentle fire. At the time of boiling, milk was stirred with the help of a khunti in a circular manner @ 100 rpm. The stirring-cum-scrapping process was continued till a pasty consistency was reached. Then temperature was lowered upto 88-89°C. At this stage, calculated amount of mango pulp and sugar @ 30 per cent of khoa and mango pulp were added. Finally this mixture was heated on a low fire with stirring till the desired texture was obtained. It was then spread in a tray and allowed to cool. After setting, mango burfi was cut into rectangular blocks.

2.6 Statistical analysis: The data obtained in the present investigation was tabulated. The data were analysed statistically by using completely randomised design (CRD) as per Panse and Sukhatme (1985). The significance was evaluated on the basis of critical difference. In all six trials were conducted.

RESULTS AND DISCUSSION

The results obtained during the course of present investigation have been delineated hereunder “Economics of preparation of mango burfi.”

The mango burfi thus prepared was subjected to analyse cost of production/unit.

<table>
<thead>
<tr>
<th>Particulars</th>
<th>Cost (Rs/kg)</th>
<th>T₀</th>
<th>T₁</th>
<th>T₂</th>
<th>T₃</th>
</tr>
</thead>
<tbody>
<tr>
<td>Milk (lit)</td>
<td>15.00</td>
<td>2.00</td>
<td>30.00</td>
<td>2.00</td>
<td>30.00</td>
</tr>
<tr>
<td>Sugar (g)</td>
<td>16.00</td>
<td>198</td>
<td>3.15</td>
<td>198</td>
<td>3.15</td>
</tr>
<tr>
<td>Mango pulp grams/ml</td>
<td>140.00</td>
<td>-</td>
<td>-</td>
<td>33</td>
<td>4.62</td>
</tr>
<tr>
<td>Fuel charges</td>
<td>-</td>
<td>-</td>
<td>5.00</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>5.00</td>
<td>-</td>
</tr>
<tr>
<td>Labour charges</td>
<td>-</td>
<td>-</td>
<td>12.00</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Total expenditure Rs.</td>
<td>55.50</td>
<td>12.00</td>
<td>59.77</td>
<td>64.25</td>
<td>68.69</td>
</tr>
</tbody>
</table>
3.1 Cost structure of mango burfi: All the ingredients required for preparation of mango burfi were rated as per the prevailing market prices 2006-07. The cost structure of burfi is presented in Table 1 and 2.

It is revealed from Table 1 and 2 that cost of production per kg of mango burfi was found less in treatment Tₐ (Rs. 76.68) and highest cost per kg mango burfi was observed in treatment T₃ (Rs. 85.40) per kg.

The increase in the cost of production in treatment T₁, T₂ and T₃ was due to addition of mango pulp.

Cost of one kg mango burfi for treatment Tₐ was worked out as Rs. 76.68 which is lowest in all the treatments, whereas the cost of production for 1 kg mango burfi in treatment T₁ (95 % khoa + 5 % mango pulp) was Rs. 79.85 for treatment T₂ the cost was Rs. 83.06 and for treatment T₃ was Rs. 85.40 only which is less than the market price. The prevailing market price of plain burfi is Rs. 125.00 per kg.

It can be concluded that we can prepare good quality mango burfi by adding 10 to 15 per cent mango pulp.

CONCLUSION

Cost structure for 1 kg mango burfi for treatment Tₐ was worked out as Rs. 76.68 which lower in all treatments. Cost structure for 1 kg mango burfi in treatment T₁ (95 % khoa + 5 % mango pulp) was Rs. 79.85 and for treatment T₂ was Rs. 83.06 for treatment T₃ it was Rs. 85.40 which was higher than the rest of the treatments.

The cost of 1 kg plain burfi in the market was around Rs. 125 and mango burfi prepared in Department for this research, worked out as Rs. 76.68 which is lower than the market rate. From 2 lit. of standardized buffalo milk yields 500 gms of khoa.

REFERENCES