

Organoleptic Properties of *Khoa Burfi* Blended with Coconut

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ABSTRACT: In this study attempt has been made to standardize a formulation for the preparation of khoa burfi blended with coconut (*cocosnucifera*). Burfi was prepared from buffalo milk blended with coconut paste @ 10, 15 and 20% by weight and compared with traditional burfi for organoleptic properties. Burfi prepared from 15 per cent coconut paste blend was superior in overall acceptance than other blend. Increase in coconut paste content was observed to increase in the moisture content of burfi.

Key words: Buffalo milk, coconut paste, sugar

INTRODUCTION

Milk and milk product occupy a very important place in the food sector and Indian economy. The market demand for instant food and *burfi* is growing all over world and consumers. Hence looking toward the the market demand and consumer preference were made to prepare the *burfi* from *khoa* blended with coconut paste. The development of *Khoa burfi* blended with coconut is popularize the Indian sweets which are having now demand for export to the western countries. In this study, an attempt was made to prepare *burfi* from buffalo milk blended with varying amount of coconut (*cocosnucifera*) paste. Further, the organoleptic characteristics of finished product were studied.

MATERIALS AND METHODS

The buffalo milk obtained from the market was standardized to 6% fat. Quality coconut (*cocosnucifera*) fruits from market were procured. Good quality, well developed coconut fruit was selected. The skin of fruits was peeled manually with help of knife and cut into pieces. Then the brown tests were removed by pairing carefully. The paired piece of coconut was crushed in mixture to make paste.

Treatment Combinations

For the preparation of *burfi* blended with coconut paste the treatment combinations were studied as under.

T₀ = 100 parts buffalo milk *khoa* by weight

T₁ = 10 parts of coconut paste + 90 parts buffalo milk *khoa* by weight

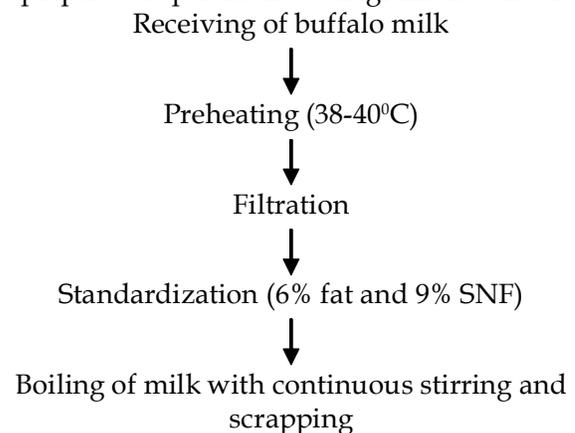
T₂ = 15 Parts of coconut paste + 85 parts buffalo milk *khoa* by weight

T₃ = 20 parts of coconut paste + 80 parts buffalo milk *khoa* by weight

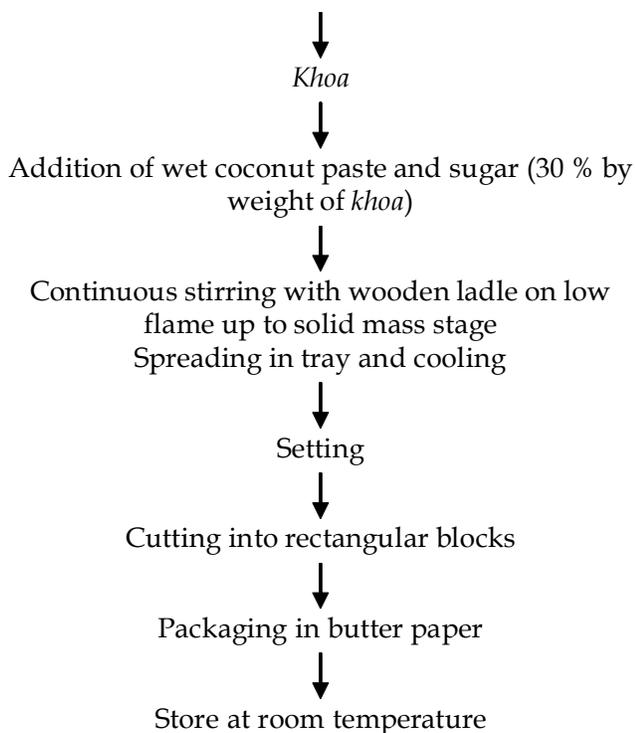
The different levels were tried and compared with control (T₀).

Preparation of *khoa burfi* Blended with Coconut

Buffalo milk was standardized to 6% fat and heated with continuous stirring till pasty consistency. The coconut paste was blended with the concentrated buffalo milk in various proportions in accordance with treatments. The *khoa burfi* blended with coconut paste was prepared as per the flow diagram shown below.



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Various treatment of *khoa burfi* blended with coconut were subjected to organoleptic evaluation for colour and appearance, flavour, body and texture, sweetness. The data obtained on various parameters studied were subjected to CRD to evaluate differences among the various parameters studied.

RESULTS AND DISCUSSION

Colour and Appearance Score of *khoa burfi* Blended with Coconut

The average score for colour and appearance was presented in Table 1.

Table 1
Colour and appearance score for khoa burfi blended with coconut (out of 9.0)

Replication					
Treatment	R-I	R-II	R-III	R-IV	Mean
T ₀	8.00	7.00	7.20	7.50	7.42
T ₁	8.25	7.75	7.70	8.50	8.05
T ₂	8.60	8.75	9.00	8.85	8.80
T ₃	8.90	8.35	8.45	8.20	8.47
S.E. + 0.175			C.D. at 5% 0.525		

Table 1 showed the acceptability of the *khoa burfi* blended with coconut in terms of colour and appearance. The critical difference (CD) was calculated and treatment differences were tested at 5 per cent level of significance. It was observed that,

the overall score of *burfi* in treatment T₀, T₁, T₂ and T₃ were 7.42, 8.05, 8.80 and 8.47, respectively. The non-significant difference was observed in between the treatment T₂ and T₃. The significant differences were observed in between the treatment T₀, T₁ and T₁, T₂. The colour and appearance score for *khoa burfi* blended with coconut samples were lower as compared to control. Among the levels of coconut paste, the lowest score for colour and appearance was obtained at 10 per cent.

The values recorded for colour and appearance of *khoa burfi* blended with coconut in the present investigation are comparable with the findings of below mentioned research workers.

Kathalkar (1995) prepared milk ber pulp *burfi* and recorded the score of colour and appearance between 6.51 to 7.65. Wakchaure (2003) recorded the average scores for colour and appearance of sapota pulp *burfi* ranging from 6.92 to 8.30. Golande (2007) reported the colour and appearance score of sweet orange *burfi* as 6.89 to 7.40. Shelke (2007) reported the score of colour and appearance for mango *burfi* as 7.06 to 8.80. Bankar (2011) prepared pineapple *burfi* and reported that the colour and appearance score in the range of 7.81 to 8.59 per cent. Hajare (2011) prepared almond *burfi* and reported that the colour and appearance score in the range of 3.2 to 4.5 per cent.

Flavour Score of *khoa burfi* Blended with Coconut

The flavour score of *khoa burfi* blended with coconut was tabulated in Table 2.

Table 2
Flavour score for khoa burfi blended with coconut (out of 9.0)

Replication					
Treatment	R-I	R-II	R-III	R-IV	Mean
T ₀	7.40	7.25	7.75	7.50	7.47
T ₁	7.80	8.00	8.50	8.25	8.13
T ₂	8.75	8.65	9.00	8.70	8.77
T ₃	9.00	8.55	8.65	8.35	8.63
S.E. ± 0.123			C.D. at 5% 0.371		

It was observed that the mean score for the flavour of *burfi* for treatments T₀, T₁, T₂ and T₃ were 7.47, 8.13, 8.77 and 8.63 respectively. The critical difference (CD) was calculated and treatment differences were tested at 5 per cent level of significance. The flavour score for *khoa burfi* blended with coconut samples were higher as compared to control (T₀). The non-significant difference was observed in between the treatment T₂ and T₃. The significant differences were observed in between the treatment T₀, T₁ and T₁, T₂.

This showed that, there was increase of score with an increase in level of coconut paste at certain level. The lowest score (8.13) was secured by T₁ treatment in which the level of coconut paste was 10 per cent.

Kathalkar (1995) reported the flavour score of milk ber pulp *burfi* ranged between 6.25 to 7.56. Wakchaure (2003) reported the flavour score of sapota pulp *burfi* ranged between 6.05 to 7.19. Golande (2007) reported the flavour score of sweet orange *burfi* ranged from 7.30 to 8.05. Shelke (2007) observed the flavour score of mango *burfi* in the range of 7.10 to 8.42. Bankar (2011) prepared pineapple *burfi* and reported flavour score as 7.78 to 8.51. Hajare (2011) prepared almond *burfi* and reported flavour score as 7.0 to 9.0.

The results reported by above mention research workers are in agreement with the present findings.

Body and Texture Score of *khoa burfi* Blended with Coconut

The value recorded in respect of body and texture score of the finished product was shown in Table 3.

Table 3
Body and texture score for *khoa burfi* blended with coconut (out of 9.0)

Treatment	Replication				Mean
	R-I	R-II	R-III	R-IV	
T ₀	7.50	6.50	7.00	8.00	7.25
T ₁	8.25	8.75	8.15	8.50	8.41
T ₂	8.85	9.00	8.65	8.80	8.82
T ₃	8.70	8.65	8.95	8.55	8.71
S.E. + 0.188			C.D. at 5% 0.564		

Table 3 represented that the body and texture score of *khoa burfi* blended with coconut. The critical difference (CD) was calculated and treatment differences were tested at 5% level of significance. The body and texture score for *khoa burfi* blended with coconut samples was higher as compare to control T₀. The non- significant difference was observed in between the treatment T₂ and T₃. The significant differences were observed in between the treatment T₀, T₁ and T₁, T₂. Therefore it can be concluded that the treatment T₂ secured the highest score (8.82) for body and texture and it was liked very much by the judges among the treated samples.

The results recorded in the present investigation are comparable with the findings of following research workers.

Golande (2007) studied on sweet orange *bufi* and recorded the body and texture score as 7.15 to 8.00. Shelke (2007) observed the score for body and texture

of mango *burfi* ranged between 7.50 to 8.25. Bankar (2011) prepared the pineapple *burfi* and observed the score for body and texture in the range of 7.69 to 8.23. Hajare (2011) prepared the almond *burfi* and observed the score for body and texture in the range of 7.0 to 8.5.

Sweetness Score of *khoa burfi* Blended with Coconut

Table 4 indicated the score of sweetness of *khoa burfi* blended with coconut.

Table 4
Sweetness score for *khoa burfi* blended with coconut (out of 9.0)

Treatment	Replication				Mean
	R-I	R-II	R-III	R-IV	
T ₀	8.00	7.50	7.20	7.25	7.48
T ₁	7.80	8.60	7.75	8.15	8.07
T ₂	8.30	8.85	8.35	8.55	8.51
T ₃	8.10	8.45	8.80	8.40	8.43
S.E. + 0.169			C.D. at 5% 0.507		

The Table 4 indicated that the mean scores for sweetness of *burfi* for the treatment T₀, T₁, T₂ and T₃ were 7.48, 8.07, 8.51 and 8.43, respectively. The critical difference (CD) was calculated and treatment differences were tested at 5 per cent level of significance. The sweetness score for *khoa burfi* blended with coconut samples were higher as compared to control. The non- significant difference was observed in between the treatment T₂ and T₃. The significant differences were observed in between the treatment T₀, T₁ and T₁, T₂. The highest score (8.51) was obtained by treatment T₂ which was higher than the control and liking of judges was in between like very much to like extremely. It was significantly superior over the treatment T₁ and T₃.

The results obtained in the present investigation are in agreement with the findings of below mention research workers.

Wakchaure (2003) recorded the sweetness score of sapota pulp *burfi* in the range of 7.27 to 8.10. Golande (2007) prepared the sweet orange *burfi* and observed the score of sweetness in the range of 7.25 to 8.08. Shelke (2007) observed score of sweetness as 7.75 to 8.30 for mango *burfi*. Bankar (2011) studied on pineapple *burfi* and reported the sweetness score in the range of 7.69 to 8.55.

Overall Acceptability of *khoa burfi* Blended with Coconut

The data obtained on overall acceptability of treatments T₀, T₁, T₂ and T₃ was tabulated in Table 5.

Table 5
Overall acceptability score for khoa burfi blended with coconut

Treatments	Colour	Flavour	Body and texture	Sweetness	Overall acceptability
T ₀	7.42	7.47	7.25	7.48	7.40
T ₁	8.05	8.13	8.41	8.07	8.16
T ₂	8.80	8.77	8.82	8.51	8.72
T ₃	8.47	8.63	8.71	8.43	8.56
S.E. ± 0.072			C.D. at 5% 0.216		

Table 5 showed that the mean scores of overall acceptability of *khoa burfi* blended with coconut for the treatments T₀, T₁, T₂ and T₃ were 7.40, 8.16, 8.72 and 8.56, respectively. The critical difference (CD) was calculated and treatment differences were tested at 5 per cent level of significance. The overall acceptability score indicate that the treatment T₂ was superior over rest of the treatments which had the highest mean score (8.72) as it was liked very much by the judges. The overall acceptability score of different treatment combinations were higher as compared to control (T₀). The non- significant difference was observed in between the treatment T₂ and T₃. The significant differences were observed in between the treatment T₀, T₁ and T₁, T₂. The lowest overall acceptability score (8.16) was found in treatment T₁ which was due to decrease level of coconut paste blend which decreased colour and appearance, body and texture, flavor, sweetness and hence its overall acceptability score was less as compared to T₂ and T₃ treatment. The results recorded in the present investigation were comparable with the findings of following research workers.

Kathalkar (1995) studied on milk ber pulp *burfi* like product recorded the score for overall acceptability in the range of 6.33 to 7.42. Wakchaure (2003) reported that overall acceptability score of sapota pulp *burfi* ranged between 6.95 to 8.12. Golande (2007) reported the overall acceptability score of sweet orange *burfi* in between 6.93 to 8.10. Shelke (2007) reported the overall acceptability score of mango *burfi* ranged from 7.31 to 8.45. Bankar (2011) prepared pineapple *burfi* and reported overall acceptability score in the range of 7.74 to 8.47. Hajare (2011) prepared almond *burfi* and reported overall acceptability score in the range of 17.7 to 22.0.

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