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Organoleptic Quality of Apple Burfi

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Abstract

Burfi is a well known sweet confectionery in India. It is a traditional indigenous sweet that has made its way to almost all household in the subcontinent. On the other hand due to its high nutritive characteristics flavor, palatable nature apple has also gained an appreciable amount of popularity. This makes apple burfi an incredible combination. Organoleptic quality were analysed like Flavour, Colour and Appearance, Body and texture, and Overall acceptability. Flavour, body and texture, colour and appearance, and Over all acceptability was found significant at 10% apple level. The physical qualities of apple burfi at 10% Apple pulp level was significantly higher ($p<0.01$) among the other apple pulp levels.

Introduction

The world's largest integrated dairy development programme has made considerable progress in achieving its objectives. Milk is regarded as a complete food in a human diet. Milk provides all the nutrients essential for the nourishment of the human body. milk is consumed as a whole or by converting it into various milk products such as fermented milk product., coagulated and concentrated milk product. In india khoa is widely as a base material for the preparation of variety of popular indigenous sweets. Burfi name in Hindi has been derived from Persian *Burfi* literally, 'icy, snowy', also denoting a kind of sweet decorated with silver leaf. Good quality burfi is characterized by moderately sweet taste, soft, slightly greasy body and smooth texture with very fine grains.

Material and Methods

An experiment consisting **"Preparation of Apple burfi from buffalo milk"** was carried out in the department of food science and nutrition and animal husbandry and dairying, Chandra Shekhar Azad University of Agriculture and Technology, Kanpur. Buffalo milk samples was obtained from university dairy farm. Buffalo milk was used in this research project. Apple fruits purchased from local market were washed with clean water. The skin was removed Fruit was cut in pieces and converted into pulp by using pulper machine.

Preparation of apple burfi :

Receiving of buffalo milk

Filtration

Standardization (6% fat & 9 % snf)

Khoa

Addition of sugar 30% (by weight of khoa)

Addition of Apple pulp (by weight of khoa)

Heating with scrapping until it reaches to solid mass

Spreading in aluminum tray for cooling

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Setting

Cutting into rectangular pieces

Apple burfi.

The product was graded according to the 9 point hedonic scale.

Treatment details :

Apple pulp and khoa were used.

T_0 = 0% Apple pulp + 100% of khoa by weight

T_1 = 10% Apple pulp + 90% of khoa by weight

Results and discussions

Table 1. Organoleptic analysis of different parameter of apple burfi.

Treatment	Flavour	Body and texture	Colour and appearance	Overall acceptability
A_1	7.75	7.58	7.25	7.91
A_2	7.83	7.83	7.83	8.16
A_3	7.41	7.25	7.33	7.83
A_4	7.16	6.83	7.00	7.58
SE.d	0.06	0.10	0.07	0.11
CD at 5%	0.13	0.20	0.15	NS

T_2 = 20% Apple pulp + 80% of khoa by weight

T_3 = 30% Apple pulp + 70% of khoa by weight

Organoleptic evaluation : Organoleptic evaluation was done by panel of 5 judjes using 9 point hedonic scale.

Statistical Methods : The data were analysed statistically by using completely randomized design.The significance was evaluated on the basis of critical difference.

Organoleptic evaluation : Flavour indicates that smell and taste of particular product it considered to be main attributes to determine its acceptability among consumers. Overall average flavour score was recorded 7.54 of apple burfi irrespective of apple levels and storage period, storage of flavour score of apple from 7.0 to 8.50 of apple burfi average flavour score on account of different apple levels. Ranged from 7.16-7.87 with minimum and maximum being in case of 10%, 20% and 30% apple levels respectively. Ranged from 7.16-7.87 with minimum and maximum being in case of 10%, 20% and 30% apple levels respectively. Average flavour score due to different storage periods ranges from 7.00 to 8.50 with minimum and maximum being in case of stored apple burfi b_3 (10 days) and fresh apple burfi b_1 (0 days) respectively.It was Observed that the flavour score was highest by treatment T4 (42.16) with 15 per cent pineapple pulp and significantly superior than T5 (40.12) and T6 (39.68) at par with T1 (41.12), T2 (41.40), T3 (41.84). The present investigations are in agreement with similar attributes by **Gargade (2004).** In case of body texture the A2 treatment was superior (value is 7.83) according to mean performance followed by A1 (7.58) and lowest is A4 (6.83). Overall average body and texture score were recorded 7.37 of apple burfi irrespective of apple pulp levels and storage period, range of body and texture score of apple pulp from 7.00-8.50 average body and texture score on account of different apple levels ranged from 7 to 8 with minimum and maximum being in case of 30% and 10% apple levels respectively. The effect of different apple level on body and texture score was found to be significant. Average body and texture score due to different storage period ranged from 6.83-7.83. The minimum and maximum being in case of stored apple burfi B_3 (10days) and fresh apple burfi B_1 (0 day) respectively. The effect of different storage period was found to be highly significant. In case of Colour and Appearance the A2 treatment was superior (value is 7.83) according to mean performance followed by A3 (7.33) and lowest is A4 (7). The Overall average colour and appearance score was recorded 7.35 of Apple-burfi irrespective of apple pulp levels and storage periods, range of colour and appearance score of apple pulp from 7.00 to 8.50 of Apple-burfi. Average body and texture score on account of different Apple pulp level ranged from 6.91 to 7.58 with minimum and maximum being in case of

30%, 20% and 10% apple pulp levels respectively. The effect of different apple pulp level on colour and appearance score was found to be significant. Average colour and appearance score due to different storage periods ranged from 6.75 to 800 with minimum and maximum being in case of stored Apple-burfi B (5 days) and fresh Apple-burfi B_1 (0 day) respectively. 10% apple pulp level among the other Apple pulp levels. The higher score of colour and appearance of Apple-burfi was found in 10% apple pulp level followed by 20% and 30% apple pulp levels respectively. It is fact that lower apple pulp content gives good colour and appearance than higher apple pulp content. In case of overall acceptability treatment was superior A3 (8.16) followed by A1 (7.91) and lowest (7.58). Overall score of Apple-burfi varied on account of different apple pulp levels to another Overall average of overall acceptability score recorded 7.87 of Apple-burfi irrespective of apple pulp levels and storage periods range of overall acceptability score of apple pulp from 7.00 to 8.50 Average over all acceptability score were account of different apple pulp levels ranged from 7.16 to 8.16 with minimum and maximum being in case of 30% and 10% apple pulp levels respectively. Average overall acceptability score due to different storage periods ranged from 7.37 to 8.25 with minimum and maximum in case of stored apple-burfi B_3 (10 days) and fresh apple- burfi B_1 (0 day) respectively.The results obtained in the finished products were similar to those reported by **Wankhede S.K. (2005)**. The effect of different apple pulp levels on overall acceptability score was found to be significant. The critical difference of data showed the highly significant ($P < 0.01$) results.

Conclusion

It may be concluded that the superior quality apple burfi can be prepared by addition of 10 parts of apple pulp and 90 parts of khoa by weight basis with addition of 30 per cent sugar. . On the other hand due to its high nutritive characteristics ,flavour, palatable nature apple has also gained an appreciable amount of popularity. This makes apple burfi an incredible combination.

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