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Chemical assessment of khoa based burfi prepared from blend cow and buffalo milk

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Abstract

The current study, "Study on Preparation of Khoa Based Burfi from Blend of Cow and Buffalo Milk and Assessment its Shelf-life," was conducted at the Dairy Technology Lab, Department of Animal Husbandry and Dairying, C.S. Azad University of Agriculture and Technology, Kanpur-208002 (U.P.). This study's primary objectives were to maximize the amount of sugar in Burfi and examine the organoleptic, compositional, and microbiological characteristics of Burfi made with khoa. Pre-experimental trials determined the amounts of sugar and cow and buffalo mix milk khoa for final experimental trials based on organoleptic assessment. 15, 20, 25, 30, and 35 percent sugar levels. For more research, 20% of sugar and cow and buffalo blend milk khoa were chosen. Completely Randomized Design (CRD) was used to analyze the results of organoleptic, compositional, and microbiological properties. Additionally, the benefit-to-cost ratio of made cow and buffalo mix milk khoa-based Burfi was evaluated. The panel of judges used a nine-point hedonic scale for the organoleptic examination. The findings demonstrated that the various sugar concentrations significantly improved the quality of the khoa-based burfi in terms of color and appearance, flavor, body and texture, and general acceptability. According to the organoleptic test, the Burfi made by blending with 20% sugar (A2) had the highest color and appearance score (6.77). Other treatments showed a dull yellowish to brown color, and the body and texture score decreased as the amount of sugar increased. Burfi made by mixing with 20% sugar level (A2) had the highest score (7.07 out of 9) on a 9-point hedonic scale, making it the most acceptable therapy overall. According to the findings, the percentage of moisture, fat, protein, and ash in khoa-based Burfi reduced as sugar levels increased, but the percentage of total carbohydrates climbed. 25.29 percent moisture, 18.78 percent fat, 16.27 percent protein, 36.72 percent total carbohydrates, and 2.93 percent ash were found in the Burfi made with the addition of (A2) 20 percent sugar.

Keywords: Sugar, cow milk, buffalo milk, khoa, burfi, etc.

1. Introduction

With an annual growth rate of 3.58 percent and an annual milk production of 247.87 MT in 2024–2025, India is emerging as the world's largest milk producer. India has 485 grams of milk per person per day (Animal Husbandry Statistic, 2025). Since ancient times, extra milk has been converted into a range of traditional milk products, mostly for preservation. The social, cultural, and economic prospects of Indian ancestry have been significantly impacted by these traditional dairy products. Additionally, they are progressively gaining popularity worldwide in preserving people's nutritional well-being (Bandyopadhyay *et al.*, 2006). Additionally, it has been estimated that khoa and condensed milk products make about 6.5% of India's total milk production (Shete *et al.*, 2012) ^[18]. The value of khoa produced in India each year is nearly doubled when it is converted into a variety of popular indigenous khoa-based sweets, such as burfi, peda, Gulab jamun, milk cake, kalakand, etc. These sweets have gained popularity in India and its neighboring countries. Of these, burfi is the most well-

liked and nutritious khoa-based sweet, and its rich flavor and palatability have made it a favorite among consumers of all ages. Because of its taste, it is quite popular among many social classes. Burfi is an indigenous milk product made from khoa that has significant nutritional and economic value. It is one of India's most well-liked milk-based sweets. It is made by heating a mixture of sugar and concentrated milk solids (khoa) until it is almost uniform, then cooling and chopping it into tiny cuboids. To get a product with a smooth texture and closely knit body, beating and whipping activities are occasionally performed before cooling. Fruit, nut and chocolate, saffron, and raw Burfi are the most widely consumed types. You can use these components alone or in combination (Aneja *et al.*, 2002). A soft, slightly oily body, a silky texture with very small grains, and a somewhat sweet taste are characteristics of high-quality burfi. Depending on the type of milk used, the color should be consistent, either white or slightly yellow (Pal and Raju, 2006) ^[14]. Burfi has a shelf life of seven to ten days in ambient settings (Khan *et al.*, 2008). All of the nutrients needed for the body's growth and

development are concentrated in khoa. In terms of unit weight and calorie content, it is four to six times more nutrient-dense than milk. High quality. Khoa should be a compact mass of equally sized, minuscule particles that show no signs of water or fat leakage. The bulk of the fat-soluble vitamins A and D should also be preserved. 50–55% of India's milk production is used to make traditional dairy-based goods and sweets. A significant amount of the milk is used to make native dairy products like khoa and sweets made from it (codex Alimentarius 2019). The technical program, experimental materials, methodologies, techniques, and analytical procedures pertaining to the physical, chemical, microbiological, and sensory parameters used in the current inquiry are all covered in length in this chapter. Toned milk was made in the lab while buffalo and cow milk were taken from the dairy farm of Chandra Shekhar Azad University of Agriculture and Technology, Kanpur.

2. Materials and Methods

Materials mainly included the ingredients required for optimization of compositional and processing parameters for Khoa based Burfi from blend cow milk, buffalo milk.

A. Raw Milk

Cow and Buffalo milk were obtained from the dairy farm of C.S. Azad university of Agriculture and Technology, Kanpur. The milk was standardized at 5% fat by using Pearson square method.

B. Sugar

Sugar was purchased from the market and used as sweetening agent.

C. Equipment

The equipment used for the preparation of Burfi were as follows:

- 1) Gas
- 2) Weighing machine
- 3) Milk heating vessel (Stainless steel Karahi)
- 4) Spatula
- 5) Strainer
- 6) Muslin cloth
- 7) Stainless steel ladle
- 8) Aluminum tray
- 9) A centigrade thermometer

2.1. Manufacturing Procedure

Manufacturing Procedure of Burfi included two major parts:

- 1) Khoa making
- 2) Burfi making

(a) Khoa preparation

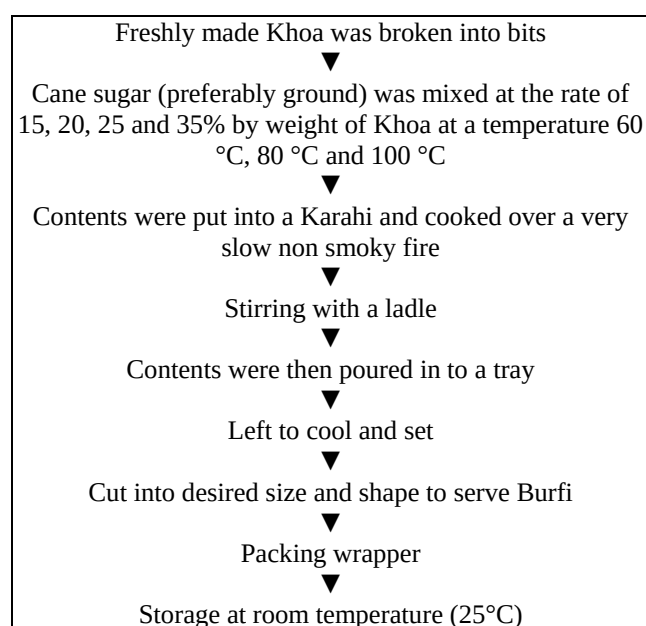
A normal khoa preparation is 3 kg In Karahi, standardized milk (cow and buffalo milk) was boiled in batches over a quick, non-smoking fire. The milk was constantly and brutally churned in a circular motion by a ladle. During this process, every part of the pan that holds the milk is prevented from burning. The milk became thickened as the moisture continued to evaporate. The abrupt color shift of the stage was marketing. Following that, the speed of stirring and scraping was increased and the temperature was kept under more control. The sticky material dried fast and became pasty

and semi-solid. The last phase required extreme caution. The final result was complete when it started to stick together and split from the bottom and side of the Karahi. The Khoa pat was always created by removing the pan from the heat and pressing the contents up and down into a single compact mass.

(b) Burfi Preparation Method

Khoa was freshly prepared and split into little pieces. At temperatures of 60 °C, 80 °C, and 100 °C, cane sugar (ideally ground) was added at rates of 15, 20, 25, 30, and 35% by weight of Khoa. Stirring with a Khunti, the contents were placed in a Karahi and cooked over a very slow, non-smoking fire. After that, the contents were transferred to an aluminum tray to cool and set. The Burfi was prepared for serving by being cut into the appropriate size and shape. The Burfi was now placed in plastic bags and kept at room temperature (25 °C).

Flow Diagram of Burfi Preparation



2.2. Methods of Analysis

2.2.1. Chemical Examination

(i) Moisture content (%) of Burfi

It was determined gravimetrically as under a clean and dry porcelain dish was heated in oven at a constant weight (W) 10 gram of Finally ground homogeneous samples of Burfi was accurately weighted (W), when this was transferred to automatically controlled electric oven at a temperature of 100 °C for three hours. The dish was taken out from in oven & cooled in a desiccator and weighed to a constant weight (W3).

$$\text{Percent moisture} = \frac{W_2 - W_3}{W_2 - W_1} \times 100$$

The method had been derived from the Richmond's dairy Chemistry by Davis and Macdonald.

Where: -

W1 = weight of porcelain dish

W2 = weight of porcelain dish Burfi

W3 = weight of dish + dried Burfi

(ii) Fat Content (%) of Burfi

Fat content of Burfi was determined by Gerber's method as described in IS-1224 (Part-II) 1977 for analysis of cheese. 5 g of Burfi samples was weighted in a beaker and was converted into a paste by a glass rod with the help of small amount of hot distilled water. 1 ml of ammonium hydroxide was added to it and again it was thoroughly mixed to bring the proteins in solution. The content of Burfi was transferred in to butter butyrometer. The beaker was washed by a little amount of hot distilled water. The washings were also transferred to the butyrometer. 10 ml sulphuric acid (Sp. Gravity 1.82-1.825) and 1 ml of amyl alcohol (Sp. gravity 0.825) were added to it. Hot distilled water was added, if necessary, to bring the level of limits of graduation on the stem of butyrometer. The butyrometer was stoppered with rubber stopper and the contents mixed well by thoroughly shaking. The butyrometer was then transferred in a water bath for five minutes maintained at temperature of 70°F. Then the butyrometer was quickly transferred to Gerber's Centrifuge and centrifuged for 5-6 minutes at a speed of 1200 r.p.m. Then the centrifuged was then stopped and the butyrometers were taken out from the centrifuge. The butyrometer was again transferred to water bath at a temperature of 70°F for 5 minutes. The reading was observed from the graduated stem of butyrometer by manipulating the stopper.

(iii) Protein content (%) of Burfi

Protein content of Burfi was determined by standard method as recommended by ISI (1961) for milk protein determination. 10.0 g of Burfi sample was taken into a clean Kjeldahl flask. 25 ml of pure nitrogen free sulphuric acid, 10 g pure potassium sulphate crystals and few crystals of (0.2 or 200mg) pure copper sulphate were added. After this, the flask was kept in the digestion chamber for digestion. The digested material was taken out from the chamber. In this condition there was no black particles of carbonaceous matter. It was then allowed to cool, diluted with distilled water and transferred to distillation flask. Kjeldahl flask's rinsings were also transferred to the distillation flask. To this a small quantity of pumic powder was also added. Slowly 80 ml of 50 per cent NaOH solution was added to distillation flask so as to form a separate layer at the bottom of liquid. Separately 50 ml of N/10 H₂SO₄ were taken in 500 ml beaker to be used to receive the condensate and four drops of methyl red indicator were also added into it. Distillation was then done till the beaker condensate was about 300 ml, using usual precautions. The condensate was removed and the excess acid in the distillate was titrated with N/10 NaOH. Thus volume of N/10 H₂SO₄ used by ammonia for neutralization was determined.

Percentage of protein in the samples was calculated with the help of following formula:

$$1 \text{ ml of N/10 H}_2\text{SO}_4 = 0.0014 \text{ g N}_2$$

(i) Percentage of nitrogen in the sample = [Amount of N/10 H₂SO₄ (ml) required to neutralize × 0.0014 / Weight of Burfi taken] × 100

(ii) Per cent of protein = Per cent of nitrogen in the sample × 6.38

(iv) Total carbohydrate (%) of Burfi

Sucrose content of Burfi was determined by volumetric method recommended by Lane-Eynon. The following method was followed:

Using all standard procedures**(a) Preparation of Solution**

40 g of the product's well-mixed sample was weighed and put into a 100 ml beaker. 50 milliliters of hot water at 80 to 90 degrees Celsius were added to the beaker. After thoroughly mixing the material, it was moved to a 250 ml measuring flask and cleaned with increasing amounts of distilled water at 60°C until the volume reached 120–150 ml. After thoroughly mixing and cooling to room temperature, 5 milliliters of diluted ammonium solution were added, thoroughly mixed, and left for 15 minutes. The previously injected ammonia was then neutralized by adding precisely the same volume of diluted acetic acid. After mixing once more, 12.5 ml of zinc acetate solution and 12.5 ml of potassium ferrocyanide solution were added. Market B1 was created by mixing once more, adding precisely 250 milliliters, letting the mixture settle, and filtering it. A 100 ml volumetric flask was filled with precisely 50 ml of solution B1, 5 ml of strong hydrochloric acid, and heated to 68°C for 5 minutes. The mixture was then cooled, neutralized with sodium hydroxide solution, and the volume was increased to 100 ml. The marking for this solution was A1. Solutions B1 and A1 were diluted until the volume of 10 milliliters of Fehling's solution was 15 and 50 milliliters, respectively, designating the solutions as B2 and A2.

(b) Standard Titration Method

10 ml of Fehling's solution was pipetted into a 300 ml conical flask, and nearly all of the prepared solution B2 needed to impact the reduction of all the copper was allowed to run from the burette. After gently heating the flask's contents for two minutes, add one milliliter of the methylene blue indicator solution without stopping the boiling process. Using a burette, the prepared solution was added drop by drop until the indicator's blue color simply vanished while the flask's contents were boiling. Titration was repeated with solution A2.

(c) Calculation Formula:

According to the formulae below,

$$\text{sucrose (\% by weight)} = [20 \times W1 \times 2 \times F2 \times V2] / [W2 \times 2 \times F1 \times V1]$$

Where:

W1 is the weight in milligrams of sucrose that corresponds to ten milliliters of Fehling's solution.

W2 = Wt. in g of the material used to make the calculation

F1 is the dilution factor for solution B2 from B1, and F2 is the dilution factor for solution A2 from A1.

V1 is the volume in milliliters of solution A1 that corresponds to ten milliliters of Fehling's solution.

V2 is the volume of milliliters of solution B2 that corresponds to ten milliliters of Fehling's solution.

(v) Ash Content (%) of Burfi

Took 5 g of sample in a weighed silica dish and found its

weight. Added 6 ml of concentrated HNO₃, heated to dryness, charged over a burner, finally ignited at a temperature below dull redness (so that chloride may not be lost) to make the ash free from carbon, cooled in a desiccators and took its weight.

Formula:

$$\text{Ash} = (W_2 - W) / (W_1 - W)$$

Where: W = weight of silica disc in g; W₁ = weight of silica disc with samples in g; W₂ = weight after ashing silica disc with ash in g.

3. Chemical quality of burfi

3.1. Moisture per cent

The comparison between different combinations in respect to moisture content of burfi has been presented in table 1.,

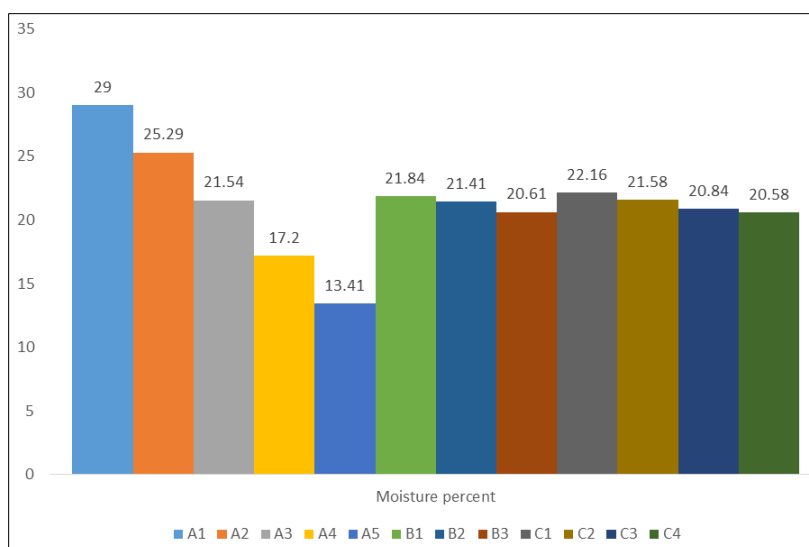


Table 1. represent the mean of different levels of the all factors with regard to moisture percent of burfi. Showed that maximum score (29.00) was in case of 15 per cent sugar level (A₁) followed by (A₂) sample percent (25.29), while minimum percent (17.20) was observed in (A₄) sample, these values differed highly-significantly when compared with CD at 5% (0.21).

The moisture percent influenced by temperatures of mixing sugar (B), the maximum score (21.84) was noted at 60°C temperature (B₁) sample, while minimum score (20.61) was observed at 100°C temperature (B₃). These values differed significantly when compared with CD at 0.05 (0.16).

As regard the effect of storage periods (C) on moisture percent of Burfi, it was revealed that highest score (22.16) was in case of fresh samples, while lowest score (20.58) was observed in samples stored for 30 days at 25°C. An inverse relationship between moisture percent and storage periods was also observe. These values differed significantly when compared with CD at 0.5 (0.18).

Shilar, *et al* (2024) ^[17] The Studies on preparation of *burfi* using oat powder”. *Burfi* was prepared from buffalo milk (standardized with 6 percent fat) with constant level of sugar (30 percent by weight of *khoa*) and with different levels of oat powder (2.5, 5, 7.5 and 10 percent by weight of *khoa*). On an average oat powder *burfi* of treatments T₁, T₂, T₃,

and illustrated by figure no. 1 revealed the following facts.

Table 1: The effect of sugar level (A), sugar mixing temperature (B) and Storage period (C) on moisture percent of khoa based burfi

Treatment	B1	B2	B3	Mean	C1	C2	C3	C4
A1	29.66	29.06	28.30	29.00	30.12	29.00	28.70	28.20
A2	26.16	25.11	24.60	25.29	26.10	25.46	24.75	24.84
A3	21.75	22.20	20.67	21.54	22.21	22.19	20.86	20.91
A4	17.73	17.15	16.72	17.20	18.04	17.58	16.91	16.26
A5	13.91	13.54	12.77	13.41	14.32	13.64	12.97	12.69
B1					22.64	22.10	21.40	21.23
B2					22.14	21.90	20.85	20.76
B3					21.70	20.73	20.27	19.74
Mean	21.84	21.41	20.61	21.29	22.16	21.58	20.84	20.58

Treatment	A	B	C	AxB	AxC	BxC	AxBxC
S.E.(d)	0.10	0.08	0.09	0.18	0.21	0.16	0.36
C.D (0.05%)	0.21	0.16	0.18	0.36	0.41	0.32	0.72

T₄ and T₅ contained moisture was 16.00, 15.60, 15.00, 14.45 and 13.40 percent, respectively, the fat was 19.90, 18.54, 17.66, 16.94 and 15.98 percent.

3.2. Fat Content

The comparison between different combinations in respect to fat content of Burfi presented in table 2. and illustrated by figure no.2 revealed the following facts.

Table 2: The effect of sugar level (A), sugar mixing temperature (B) and Storage period (C) on Fat percent of khoa based burfi

Treatment	B1	B2	B3	Mean	C1	C2	C3	C4
A1	18.93	19.22	19.32	19.15	18.72	19.02	19.33	19.53
A2	18.23	19.03	19.10	18.78	18.53	18.83	19.13	18.63
A3	18.55	17.83	18.90	18.43	18.37	17.97	18.93	18.43
A4	18.35	18.63	18.70	18.56	18.17	18.43	18.73	18.90
A5	18.15	18.18	18.50	18.28	17.97	18.23	18.53	18.37
B1					18.16	18.40	18.70	18.50
B2					18.40	18.29	19.00	18.60
B3					18.49	18.80	19.10	19.22
Mean	18.44	18.57	18.90	18.64	18.35	18.50	18.93	18.77

Treatment	A	B	C	AxB	AxC	BxC	AxBxC
S.E.(d)	0.06	0.05	0.06	0.11	0.13	0.10	0.23
C.D (0.05%)	0.13	0.10	0.12	0.22	0.26	0.20	0.45

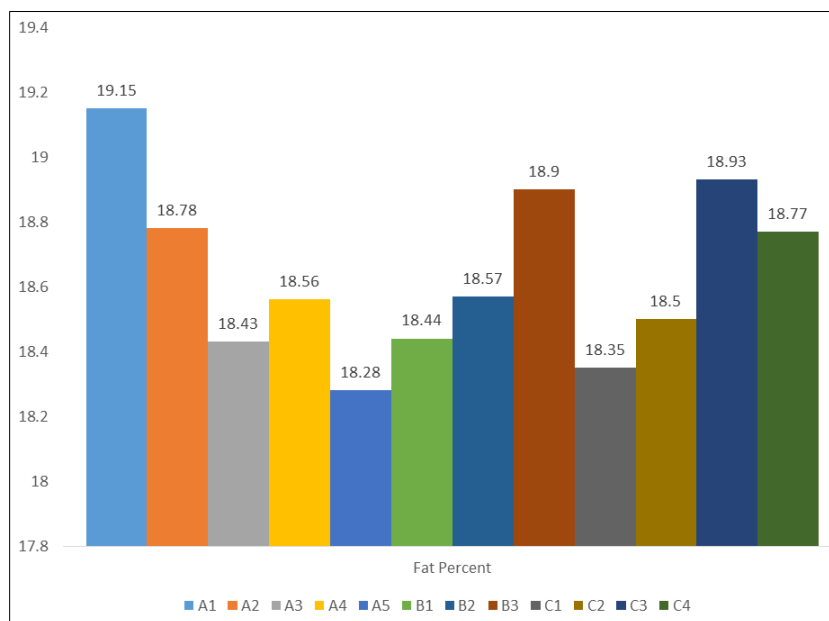


Table 2. (A). The fat content as affected by addition of various sugar levels in Burfi reveal that the samples containing 15 per cent sugar level (A_1) showed highest fat percent (19.15) followed by addition of 20 per cent (A_2), while lowest fat percent (18.28) was in case of addition 35% sugar (A_5) level. This value differed highly significantly when compared with CD at 0.05% (0.13).

The means of fat percent of Burfi as affected by different temperatures of mixing sugar revealed that maximum (18.90) and minimum (18.44) fat percent were noted in samples of B_3 and B_1 , respectively. These values differed significantly when compared with CD at 5% (0.10).

The fat percent of Burfi sample stored for various storage days, irrespective of other treatment, showed increasing trends 18.35, 18.50, 18.93 and 18.77 last sample C_4 decrease in case C_1 , C_2 , and C_3 , sample respectively. These values also differed significantly when compared with CD at 5% (0.12). The results of present investigation differ with the results of Suchdeva (1980) and Pal and Gupta (1985)^[14] who observed higher fat per cent in market Burfi this might be due to use of milk containing higher fat per cent for Khoa Burfi making while in present finding the buffalo milk containing 6% fat was used to prepare Khoa Burfi.

3.3. Protein per cent

The comparison between different combinations in respect to moisture content of Burfi has been presented in table 3. and illustrated by figure no. 3 revealed the following facts.

Table 3: The effect of sugar level (A), sugar mixing temperature (B) and Storage period (C) on Protein percent of khoa based Burfi

Treatment	B1	B2	B3	Mean	C1	C2	C3	C4
A1	16.32	16.42	16.52	16.42	16.20	16.35	16.50	16.62
A2	16.17	16.27	16.37	16.27	16.05	16.20	16.35	16.47
A3	16.02	16.08	16.21	16.10	15.89	16.05	16.16	16.31
A4	15.95	16.03	16.07	16.01	15.97	15.90	16.02	16.17
A5	15.72	15.79	15.92	15.81	15.60	15.75	15.87	16.02
B1					15.87	15.95	16.10	16.22
B2					15.96	16.05	16.13	16.32
B3					16.00	16.15	16.30	16.41
Mean	16.03	16.12	16.22	16.12	15.94	16.05	16.18	16.32

Treatment	A	B	C	AxB	AxC	BxC	AxBxC
S.E.(d)	0.03	0.03	0.03	0.06	0.07	0.05	0.12
C.D (0.05%)	0.07	0.05	0.06	N.S.	N.S.	N.S.	N.S.

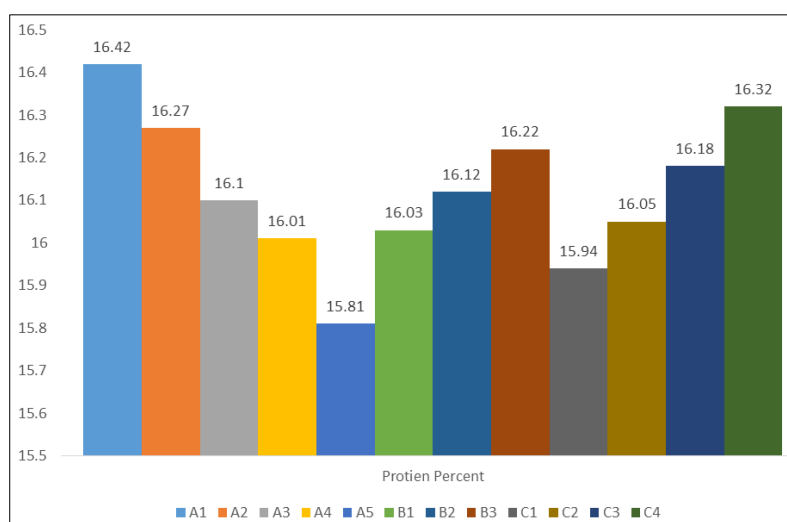


Table 3 represent the mean of different levels of the all factors with regard to protein percent of burfi. Showed that maximum score (16.42) was in case of 15 per cent sugar level (A₁) followed by (A₂) sample percent (16.27), while minimum percent (15.81) was observed in (A₅) sample, these values differed highly-significantly when compared with CD at 5% (0.07).

The means of protein percent of Burfi as affected by different temperatures of mixing sugar (B), the maximum score (21.84) was noted at 60°C temperature (B₁) sample, while minimum score (20.61) was observed at 100°C temperature (B₃). These values differed significantly when compared with CD at 0.05 (0.05).

The means of protein percent of Burfi as various storage periods (C) irrespective of other treatment showed increase trend 15.94, 16.05, 16.18, and 16.32 in case of C₁, C₂ and C₃ samples, respectively. These values differed significant when compared with CD at 0.5 (0.06).

Shilar *et al.*, (2024) ^[17] suggested that the “Studies on preparation of burfi using oat powder the protein was 15.61, 16.65, 17.05, 17.55 and 17.96 percent. the ash was 2.42, 2.49, 2.56, 2.62 and 2.69 percent, total solids 84.00, 84.40, 85.00, 85.55 and 86.35 percent and the carbohydrate were 46.05, 46.70, 47.72, 48.43 and 49.95 percent.

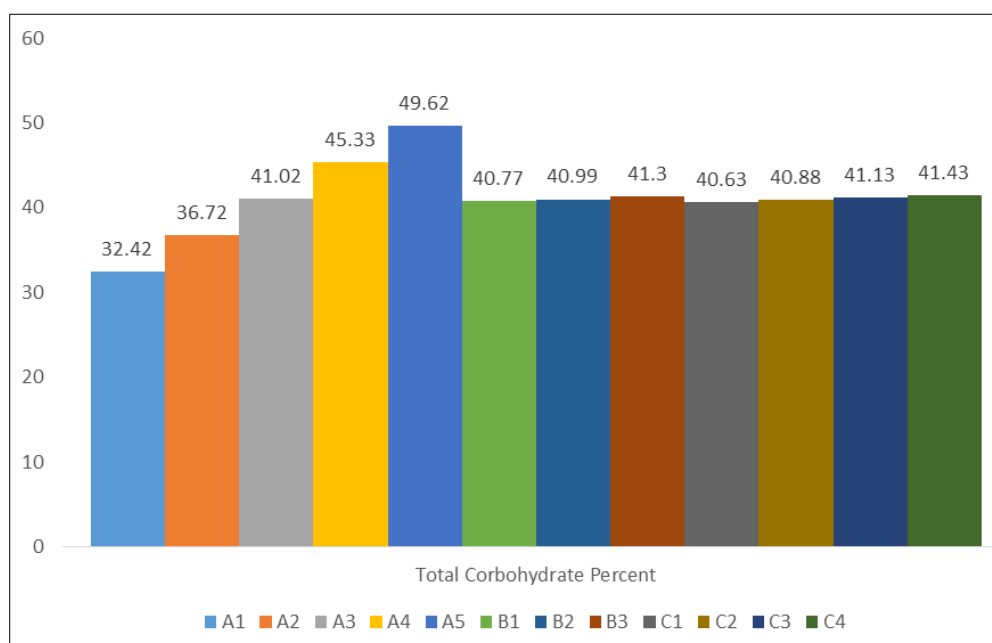


Table 4. represent the mean of different levels of the all factors with regard to Total carbohydrate percent of burfi. Showed that maximum carbohydrate percentage (49.62) was in case of 35 per cent sugar level (A₅) followed by (A₄) sample percent (45.33), while minimum percent (32.42) was observed in (A₁) sample, these values differed significantly when compared with CD at 5% (0.05).

The Total carbohydrate percent of Burfi as affected different temperatures of mixing sugar (B), the maximum score (41.30) was noted at 100°C temperature (B₃) sample, while minimum score (40.77) was observed at 60°C temperature (B₁). These values differed significantly when compared with CD at 0.05 (0.04).

As regard the effect of storage periods (C) on Total carbohydrate percent of Burfi, it was revealed that highest

3.4. Total carbohydrate per cent

The comparison between different combinations in respect to total carbohydrate percent of burfi has been presented in Table 4. and illustrated by figure no. 4 revealed the following facts.

Table 4: The effect of sugar level (A), sugar mixing temperature (B) and Storage period (C) on Total carbohydrate percent of khoa based Burfi

Treatment	B1	B2	B3	Mean	C1	C2	C3	C4
A1	32.18	32.38	32.70	32.42	32.03	32.28	32.53	32.82
A2	36.48	36.68	37.00	36.72	36.33	36.58	36.83	37.12
A3	40.78	40.98	41.30	41.02	40.63	40.88	41.13	41.42
A4	45.08	45.30	45.60	45.33	44.93	45.18	45.43	45.75
A5	49.37	49.60	49.90	49.62	49.23	49.48	49.72	50.05
B1					40.40	40.65	40.89	41.15
B2					40.60	40.85	41.10	41.39
B3					40.90	41.15	41.40	41.75
Mean	40.77	40.99	41.30	41.02	40.63	40.88	41.13	41.43

Treatment	A	B	C	AxB	AxC	BxC	AxBxC
S.E.(d)	0.02	0.02	0.02	0.04	0.05	0.04	0.08
C.D (0.05%)	0.05	0.04	0.04	N.S.	N.S.	N.S.	N.S.

score (41.43) was in case of 30 days stored samples, while lowest score (40.63) was observed in fresh sample at 25°C. An inverse relationship between Total carbohydrate percent and storage periods was also observe. These values differed significantly when compared with CD at 0.05 (0.04).

S Palodkar *et al.* (2024) ^[16] suggested that The Burfi was prepared from buffalo milk (standardized with 6 per cent fat and 9 per cent SNF) with constant level of sugar (30 per cent by weight of khoa carbohydrate was 43.54, 44.71, 46.11, 47.11 and 47.54 per cent respectively.

3.5. Ash per cent

The comparison between different combinations in respect to moisture content of Burfi has been presented in Table 5 and illustrated by figure no.10 revealed the following facts.

Table 5: The effect of sugar level (A), sugar mixing temperature (B) and Storage period (C) on Ash per cent of khoa based Burfi

Treatment	B1	B2	B3	Mean	C1	C2	C3	C4
A1	2.93	2.94	2.94	2.93	2.92	2.93	2.94	2.95
A2	2.92	2.93	2.94	2.93	2.91	2.92	2.93	2.94
A3	2.91	2.92	2.93	2.92	2.90	2.91	2.92	2.93
A4	2.90	2.91	2.92	2.91	2.89	2.90	2.91	2.92
A5	2.89	2.89	2.92	2.90	2.88	2.89	2.90	2.91
B1					2.89	2.90	2.91	2.92
B2					2.90	2.91	2.92	2.93
B3					2.91	2.92	2.93	2.94
Mean	2.91	2.91	2.93	2.92	2.90	2.91	2.92	2.93

Treatment	A	B	C	AxB	AxC	BxC	AxBxC
S.E.(d)	0.002	0.001	0.002	0.003	0.004	0.003	0.006
C.D (0.05%)	0.004	0.003	0.003	0.006	N.S.	N.S.	N.S.

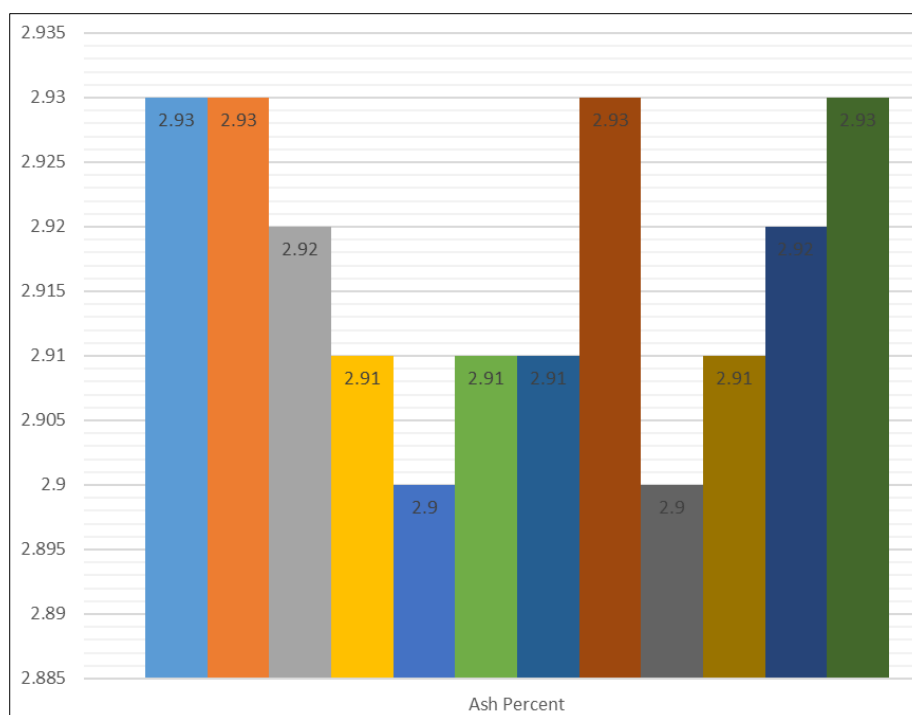


Table 5. represent the mean of different levels of the all factors with regard to Ash per cent of burfi. Showed that maximum Ash percent (2.93) was in case of 15 per cent sugar level (A₁) followed by (A₂) sample percent (2.93), while minimum percent (2.88) was observed in (A₅) sample, these values differed highly-significantly when compared with CD at 5% (0.002).

The Ash per cent influenced by temperatures of mixing sugar (B), the maximum percent (2.93) was noted at 100°C temperature (B₃) sample, while minimum percent (2.91) was observed at 80°C temperature (B₂). These values differed significantly when compared with CD at 0.05 (0.001).

The Ash percent of Burfi during various storage periods (C), irrespective of other treatments, showed increasing trends 2.90, 2.91, 2.92, and 2.93 in case of C1, C2, C3 and C4 samples, respectively. These values differed significantly when compared with CD at 5% (0.003).

Shilar *et al.*, (2024) ^[17] suggested that the Studies on preparation of burfi using oat powder the ash was 2.42, 2.49, 2.56, 2.62 and 2.69 percent, total solids 84.00, 84.40, 85.00, 85.55 and 86.35 percent and the carbohydrate was 46.05, 46.70, 47.72, 48.43 and 49.95 percent respectively.

Conclusion

The information was gathered based on the chemical quality of Burfi made from cow and buffalo blend milk using varying sugar concentrations and mixing temperatures. Burfi is a traditional Indian milk-desiccation confection made from khoa. Its chemical quality is assessed by analyzing its moisture, fat, protein, total carbohydrate, and ash content as well as estimating its nutritional profile.

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