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Research Paper

Comparision of physico-chemical, microbiological and sensory quality of *Rava Burfi* with *Mawa Burfi*

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■ **ABSTRACT :** In the present study, changes in compositional, physico-chemical, rheological, sensory and microbial properties (SPC, yeast and mould count and coliform count) of *Rava burfi* and *Mawa burfi* were compared.

■ **KEY WORDS:** Burfi, *Rava*, *Khoa*, Liquid glucose

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Burfi is one of the most popular *Khoa* based sweet in India. Once confined to household production, *Burfi* is gaining an international market in recent years owing to its delicious taste, flavour and texture. The most popular varieties of *Burfi* are fruit, nut, chocolate, saffron and *Rava burfi*. These ingredients can be used singly or in combination (Aneja *et al*., 2002). It is prepared from a mixture of *Pindi khoa* and sugar, heating to near homogenous consistency to a total solid content of about 70 %, followed by cooling and cutting into small cuboids (Patil and Pal, 2005). Beating and whipping operations prior to cooling are sometimes practiced to obtain a product with smooth texture and closely knit body. It is white to light cream in colour with firm body and smooth texture with very fine grains. Sugar is added in different proportions and other ingredients incorporated according to the demand of consumers. *Khoa* has a unique adaptability in terms of flavour, body and texture to blend with a wide range of ingredients resulting in the development of a wide range of varieties of *Burfi*. Several varieties of *Burfi* are available in the market such as plain or *Mawa*/*Khoa burfi*, fruit and nut, cashew *Burfi*, chocolate, saffron and *Rava burfi* (Sachdeva and Rajorhia, 1982; Sarkar *et al.*, 2002).

Burfi sold commercially varies widely in colour, body, texture, sweetness and flavour characteristics (Sarkar *et al*., 2002). In literature different workers have used different ingredient in *Burfi* such as ber (jujube) (Shobha and Bharti, 2007), bittergourd (Srivastava and Saxena, 2012), mango (Shelke *et al*., 2008), pineapple (Kamble *et al*., 2010; Bankar *et al*., 2013), palm (Chakraborty *et al*., 2011), sapota (Kohale and Rokhade, 2012), coconut (Gupta *et al*., 2010), groundnut (Khan *et al*., 2008) and full fat soy flour (Gandhi *et al*., 1983). *Burfi* prepared using sugar substitutes such as sorbitol syrup (Chetana *et al*., 2010; Chetana *et al*., 2005), aspartame (Chetana *et al*., 2010; Arora *et al*., 2007; Arora *et al*., 2010), maltodextrin (Chetana *et al*., 2005), maltodextrin and polydextrose (Chetana *et al*., 2005), honey (Kadam *et al*., 2010), saccharin (Arora *et al*., 2007), acesulfame-K (Arora *et al*., 2007) and sucralose (Arora *et al*., 2007) has been reported. Utilization of

cereals for manufacture of *Doda burfi* has been reported. *Doda burfi* was manufactured using germinated wheat flour (Devaraju *et al*., 2013; Chawala *et al*., 2011).

There is a vast literature on cereal components that have been shown to give health benefits. The main ones include dietary fibre, vitamins and minerals particularly iron and antioxidant. *Rava* (Semolina) is one such cereal. Semolina is the coarsely ground endosperm of wheat. Its botanical name is *Triticum aestivum.* It is generally made from hard, durum wheat, which facilitates a high yield of semolina with minimal production of flour. The calorific value of semolina is approximately 348 kcal/ 100g. Its other names are *Suji, Rava/rawa* and cream of wheat. Semolina is used as an ingredient in many Indian sweet dishes including a variety of *Kheer*. Semolina production process resembles that of *maida* (refined wheat flour). Purified semolina is uniformly sized by passage through a succession of sizing screens and graded accordingly. The average composition of semolina is protein 10.40 %, fat 0.80 %, fibre 3.20 %, carbohydrate 74.80 %, phosphorus 102 mg/100 g, calcium 16 mg/100 g and iron 1.6 mg/100 g (Gopalan *et al.,* 2004). *Rava* is available in two grades differing only in particle size *viz.,* large particle (LP) and small particle (SP). It has characteristic taste and smell. It should be free from musty or other off-odours, insects or fungus infestation, rodent contamination, dirt and other extraneous matters. When subjected to microscopic examination, the micrograph of semolina shows starch granules with characteristic appearance revealing concentric rings and more small granules than large ones. Its appearance, taste and odour can be judged by organoleptic tests (Aneja *et al*., 2002). According to FSSAI (2011) standards, semolina (*Suji or Rava*) means the product prepared from clean wheat free from rodent hair and excreta by process of grinding and bolting.

Cereals in combination with milk will make up the deficiency of lysine in milk protein as cereal protein has abundant lysine content. Cereals also constitute a source of calcium, iron and B vitamins (Millward *et al*., 2002). Moreover, the cost of semolina is about 1/12th that of milk solids. *Khoa* has a unique adaptability in terms of flavour, body and texture to blend with a wide range of ingredients resulting in the development of a wide range of varieties of *Burfi*. Therefore development of a confectionery containing cereal solids such as *Rava* in combination with *Khoa* would help in increasing the levels of calcium, iron, B vitamins and fibre and would also cost less than milk *Burfi*.

From the above facts it is clear that there is a need to compare the physico-chemical, rheological, microbiological and microbiological properties of *Rava burfi* with *Mawa burfi*. The sensory and rheological properties of product also have definite role in designing equipment and standardization of manufacturing techniques. This study was therefore planned to compare the physico-chemical, rheological, microbiological and sensory properties of *Rava burfi* with *Mawa burfi.*

■ RESEARCH METHODS

Standardized milk (4.6±0.2 % fat/ 8.6±0.05 % SNF) was used as the base material for preparation of *khoa*. *Rava* was procured from local market and the composition of *Rava* was 68.93 % carbohydrate, 0.2 % fat, 12.5 % protein, 0.8 % ash, 3.9 % crude fibre and 10.4 % moisture. Ghee of Amul Brand, Amul Dairy, Anand in Gujarat was used for roasting of *Rava*. Cane sugar used was of commercial grade (M grade) which was obtained from the local market of Anand. Liquid glucose (Gujarat Ambuja Ltd., Ahmedabad) having a DE of 38-44 was procured used with 85.00±1.00 % TS, 4.8-5.2 pH, 1 (ml of NaOH 0.1 M) max. Free acidity, 38-44 DE (Dextrose Equivalent) and 0.25 % Ash max.

Analysis :

Fat extraction of *Khoa* and *Burfi* were determined as per the procedure described in IS: 2311 (1963). Total nitrogen/protein of *Khoa and Burfi* was determined by Semi-Microkjeldahl method (IS: 1479-Part-II, 1961). Ash content of all the samples was determined by procedure described in IS: 1547 (1985). Lactose was derived by difference of sum total of the major constituents like moisture, protein, fat and ash from 100. Reducing and non-reducing sugars of *Burfi* was determined by the volumetric method specified for ice-cream in IS: 2802 (1964). The starch content of *Burfi* was determined by the method given in ISI Handbook (1989). The crude fiber content of *Burfi* was determined by the method given in IS: 1155 (1968). The acidity of *Burfi* was determined by method described in BIS (IS: 1166-1968) for condensed milk. The pH of *Burfi* was measured using Systronic digital pH meter, Model 335. The water activity of *Burfi* samples, tempered at 25° C temperature, was

measured using Rotronic Hygroskop Model: Hygrolab-3 (M/s. Rotronicag, Switzerland) connected to a sensing element (AW-DIO) with a measuring range of 0-100 % relative humidity (RH). The method prescribed by Deeth *et al.* (1975) was used to estimate the FFA content of *Burfi*. The quantitative method presented by Keeney and Bassette (1959) for quantifying HMF by spectrophotometric measurement of the 2-thio barbituric acid (TBA) reaction product was used to assess the extent of browning in *Burfi* samples with slight modification. The extent of oxidation of fat in *Burfi* was measured in terms of TBA value. The extraction method of Strange *et al*. (1977) was followed with slight modification. TBA value was expressed as absorbance (OD) at 532 nm. The soluble nitrogen contents of *Burfi* sample was determined by the procedure outlined by Kosikowski (1982).

The moisture of *Rava* was determined by procedure described in IS: 1010 (1968). The protein content of *Rava* was determined by Kjeldahl method as described by AOAC (1970). The starch content of *Rava* was determined by the method given in ISI Handbook (1989) using 2 g sample. Total ash of *Rava* was determined by standard procedure given in IS: 1010 (1968). The crude fibre of *Rava* was determined by the method given in ISI Handbook (1989) using 2 g sample.

Sensory evaluation :

For the organoleptic evaluation of *Burfi*, judges who were familiar with desirable attributes of *Burfi* were selected. The selection criterion was that subjects had to be regular consumers of typical dairy sweets as well as their similar behaviour between sensory evaluation sessions. The samples was subjected to sensory evaluation as described in using a 9 point hedonic scale score card as suggested by Stone and Sidel (2004). The judges were also requested to note down their observations/comments for each attribute specified in the score card. The *Burfi* samples were tempered at room temperature for 1-2 hour before judging. Sensory evaluation of the samples was conducted in isolated booths illuminated with incandescent light and maintained at 28±2° C. Samples were served on SS dishes covered with polystyrene dish. The samples were labelled with three-digit codes. The order of presentation of the samples was randomized across subjects. The sensory panel (n=7) was composed of staff members and post graduate students working in the institution.

Texture profile analysis :

Four samples of each experimental *Burfi* were subjected to uniaxial compression to 80 % of the initial sample height, using a Food Texture Analyzer of Lloyd Instruments LRX Plus material testing machine, England; fitted with 0-500 kg load cell. The force-distance curve was obtained for a two-bite deformation cycle employing a Cross Head speed of 50 mm/min, Trigger 10 gf and 80 % Compression of the samples to determine various textural attributes of *Burfi* held for 1 h at 23±1° C and 55 % RH.

Microbiological analysis :

All the *Burfi* samples were analyzed for the Standard Plate Count (SPC), Coliform count and Yeast and Mold count (YMC) by the methods as described in IS: 1479 Part III (1962).

Statistical analysis :

Response Surface Methodology (RSM) was used for data collected for process standardization. The mean value generated from the analysis of samples of *Rava Burfi*, obtained in four replications were subjected to statistical analysis using Completely Randomized Design (CRD) as per Steel and Torrie (1980).

Preparation of *Burfi* (control) :

Burfi was prepared from milk by following the traditional method of preparation. Ten kg milk standardized to 4.0 % fat was used as base material for manufacture of control *Burfi*. Milk was directly heated using a revolving kettle having a thick iron plate bottom, specially designed having vertical and horizontal scrappers and with variable speed facility. In this unit, LPG gas was used as fuel. The initial rpm was 30. When a pasty consistency was reached (concentration ratio of about 2.5), the rpm was increase to 45. Sugar @ 6 % by weight of milk was added at the final stages (concentration ratio 4) and the mixture was heated with continuous scrapping till the mass reached till a moisture content of about 17 %. The heating was stopped at this stage and mixing was continued for 5-7 min till a smooth homogenous mixture of *Burfi* was obtained. The hot mass was then transferred to a stainless steel plate spread evenly and cut into pieces of size 50 x 40 mm and thickness 25 mm.

The product was kept in a cool dry place (26-28^{0}C) for 8-12 hours for setting.

Preparation of *Khoa* for manufacture of *Rava burfi:*

Standardized milk (4 % fat) was forewarmed (85^0 C/10 min) and pre concentrated to 50 % total solids in vacuum pan operated at 62 cm of Hg. *Khoa* was prepared from preconcentrated milk by heat desiccation in a steam jacketed stainless steel open pan operated at 0.5 kg/cm^2 steam pressure with continuous manual stirring and scrapping. The process of heating stirring was continued till the product acquired desired consistency. The finished product was subsequently transferred to enamel trays, worked to pat form and packaged in sanitized polyethylene pouches. The samples were stored at room temperature (25 to 30^{0}C) for 18-20 hours.

Processing of *Rava* for manufacture of *Rava burfi :*

Rava (small particle grade) (250 g) was spread uniformly on SS dish (1 cm thickness), covered with a SS lid, and autoclaved at 121^{0}C for 15 min. The contents were transferred to a thick bottomed SS *karahi* (pan). The steamed *Rava* was then roasted with 100 g ghee for 10 min at 140^{0}C till light brown colour was obtained.

Preparation of sugar syrup for manufacture of *Rava burfi :*

Weigh the desired amount of sucrose (190 g) and liquid glucose (36 g). Add 100 ml potable water. Boil the contents till the concentration reaches 80 Brix.

Preparation of *Rava burfi :*

Rava burfi was prepared according to the method standardized by Shrivas *et al.* (2015). *Khoa* (400 g) is blended with the processed *Rava* and sugar syrup (boiling condition) and whipped well for 5 min. The contents are then poured on a greased tray and allowed to set overnight at room temperature. The contents are then cut into square pieces 3x3 cm.

The formulated standardized *Rava burfi* and *Mawa burfi* were packed in Composite polyethylene terephthalate (PET)/low density polyethylene (LDPE) film (50µ thickness) pouches and placed in PE box. The pouches were dipped in 0.5 % H_2O_2 solution and dried in an oven maintained at 60-65^0 C for 30 min.200 g of product was packed in each package. This experiment was carried out in three replications.

■ RESEARCH FINDINGS AND DISCUSSION

The findings of the present study as well as relevant discussion have been presented under following heads :

Chemical composition of *Rava burfi* and *Mawa burfi:*

The average values of the chemical composition for both *Rava burfi* and *Mawa burfi* are collated in Table 1 and it can be seen that there was a striking difference in the fat content, the fat content of *Rava burfi* being almost 5 % lower than *Mawa burfi*.

A comparison of *Rava burfi* with *Mawa burfi* reveals significant differences in all the compositional attributes. Out of the eight attributes studied moisture, crude fiber and starch were significantly higher in *Rava burfi* compared to *Mawa burfi* whereas fat, total protein, lactose, added sugar and ash were significantly lower than *Mawa burfi*. Such differences in the compositional attributes of *Rava burfi* and *Mawa burfi* have resulted due to ingredients used in both the products.

According to BIS requirements in India the formulated *Rava burfi* meets the standards for *Rava burfi* with respect to fat (min. 10 % required), sucrose (max. 40 %) and acidity (max. 0.45 % LA). However, the formulated *Rava burfi* did not meet the requirements for moisture (max. 15 %) and lactose (min. 12 %). The

Table 1 : Average composition of *Rava burfi* and *Mawa burfi*

Parameter	*Rava burfi*	*Mawa burfi*	S.E.±	C.D. (P=0.05)	CV %
Moisture (%)	19.29±0.41	17.28±0.30	0.22	0.65	3.33
Fat (%)	18.40±0.01	23.53±0.22	0.07	0.2	0.88
Total protein (%)	9.47±0.01	12.64±0.233	0.06	0.20	1.65
Ash (%)	1.57±0.01	3.197±0.017	0.005	0.02	0.65
Added sugar (%)	22.23±0.11	23.56±0.107	0.061	0.19	0.75
Lactose (%)	10.43±0.04	19.49±0.136	0.07	0.21	1.32
Crude fibre (%)	0.88±0.10	-	-	-	-
Starch (%)	17.72±0.12	-	-	-	-

average moisture content of *Rava burfi* was 19.29±0.41 %. It was observed that *Rava burfi* containing less than 15 % moisture content was dry and crumbly in appearance with hard body and coarse texture.

Physico-chemical attributes and yield of *Rava burfi* and *Mawa burfi :*

The average values of some physico-chemical properties of *Rava* and *Mawa burfi viz.,* acidity, pH, water activity, soluble nitrogen, FFA, HMF and TBA values are presented in Table 2.

A comparison of *Rava burfi* with *Mawa burfi* reveal significant differences in all the physico-chemical attributes. Out of the seven attributes studied only pH, TBA and FFA values of *Rava burfi* were higher than *Mawa burfi* whereas all the other physico-chemical properties of *Rava burfi* were lower compared to *Mawa burfi*. The higher TBA and FFA values of *Rava burfi* could be attributed to the ghee which was used for roasting of *Rava* during preparation of *Rava burfi*. The soluble nitrogen content of *Rava burfi* was lower than *Mawa burfi*. This could be due to the lower protein content (Table 1) of *Rava burfi* compared to *Mawa burfi*. As seen from the Table 2 the average acidity of *Rava burfi* was lower and pH was higher compared to *Mawa burfi*.

The quantity of *khoa* required to prepare one kg *Mawa burfi* was 2.27 times more than *Rava burfi*. When yield calculated on the basis of per 100 kg milk required, it can be seen that *Rava burfi* was having 2.3 times higher yield compared to *Mawa burfi.*

Microbiological count of *Rava burfi* and *Mawa burfi:*

The SPC, yeast and mould count and coliform count of fresh samples of *Rava burfi* and *Mawa burfi* were analyzed and presented in Table 3. It can be seen from the table that the SPC of *Rava burfi* was significantly lower than *Mawa burfi*. This could be due to the lower water activity of *Rava burfi* which was 0.81 compared to 0.89 in *Mawa burfi* (Table 3). The yeast and mould count and coliform count were found to be nil in both the products. This was because sufficient care was taken to maintain hygiene quality of the products in the laboratory during preparation of the products.

Rheological attributes of *Rava burfi* and *Mawa burfi:*

The average rheological attributes of both the *Burfis viz., Rava and Mawa burfi* is presented in Table 4. It can be seen that all the rheological attributes were lower for *Rava burfi* compared to *Mawa burfi*.

Sensory attributes of *Rava burfi* and *Mawa burfi :*

The average sensory scores of the *Rava burfi* and *Mawa burfi* for various attributes are collated in Table 6. The sensory terms related to desirable and undesirable attributes for *Rava burfi* is presented in Table 5. It can be seen from the Table 6 that there was no significant differences in all the sensory attributes. The flavour, body and texture scores, colour and appearance scores and

Table 2: Physico-chemical attributes of *Rava burfi* and *Mawa burfi*

Parameter	*Rava burfi*	*Mawa burfi*	S.E.±	CD (P=0.05)	CV %
Acidity (% LA)	0.264±0.001	0.32±0.032	0.01	0.02	7.31
pH	6.68±0.01	6.40±0.03	0.01	0.04	1.12
Water activity (a_w)	0.813±0.001	0.897±0.002	0.002	0.01	0.57
Free fatty acid (FFA) (μ eq/g)	0.63±0.01	0.47±0.022	0.008	0.03	7.48
Soluble nitrogen (%)	0.11±0.001	0.27±0.020	0.005	0.02	7.48
5-Hydroxy methyl furfural (HMF) (μ moles / 100g)	27.29±0.03	42.87±0.042	0.046	0.14	0.37
TBA	0.083±0.002	0.055±0.002	0.001	0.003	5.93
Kg *Khoa* required for 100 kg product	39.43±0.212	86.50±0.08	0.06	0.17	0.25
Yield (kg/100 kg milk)	58.48±0.05	25.45±0.03	0.001	0.04	0.09

Table 3 : Microbiological count of *Rava burfi* and *Mawa burfi*

Parameter	*Rava burfi*	*Mawa burfi*	S.E.±	C.D. (P=0.05)	CV %
Standard plate count (log cfu/g)	3.78±0.01	3.91±0.017	0.005	0.02	0.08
Yeast and mold count (cfu/g)			Nil		
Coliform count (cfu/g)			Nil		

overall acceptability of both the products were at par with each other. The average score of both the products with respects of all the attributes were in the range of 8.09 to 8.50 which indicates that it was in the 9 point hedonic rating of liked very much to liked extremely.

Comparison of calorific value of *Rava burfi* and *Mawa burfi* :

The property whereby a food produces heat and energy within the body is expressed in terms of energy within the body is expressed in terms of energy value. *Burfi* is an excellent source of food energy. Traditional Indian *khoa* based sweets such as *burfi* contain a significant proportion of milk nutrients and therefore are nutritious. *Khoa* based confections based on cereals occupy a prominent position in Indian diet, not only for

Table 4 : Rheological attributes of *Rava burfi* and *Mawa burfi*

Parameter	*Rava burfi*	*Mawa burfi*	S.E.±	C.D. (P=0.05)	CV %
Stiffness (N/mm)	8.43±0.03	12.31±0.10	0.02	0.08	0.68
Hardness (N)	19.71±0.10	26.15±0.10	0.03	0.08	0.32
Cohesiveness	0.0027±0.0001	0.0886±0.0018	0.0005	0.0014	2.87
Chewiness (N mm)	2.02±0.10	3.0175±0.0636	0.016	0.048	1.79
Adhesiveness (N mm)	1.10±0.004	3.356±0.0496	0.02	0.06	2.33
Fracture force (N)	11.41±0.12	14.30±0.13	0.044	0.132	0.96
Gumminess (N)	0.30±0.01	1.369±0.0770	0.02	0.06	6.60
Springiness (mm)	1.27±0.01	1.32±0.0675	0.018	0.05	NS

Table 5: Sensory terms related to desirable and undesirable attributes for *Rava burfi*

Desirable attributes	Undesirable attributes
Colour and appearance	
Uniform light cream colour with a tinge of brown	Dark brown colour
Glossy surface	Very greasy surface
Regular cuboid shape	Non-uniform colour
Shiny appearance	Excessive fat leakage
Slightly greasy surface	Presence of crumbs on surface and sides
Body and texture	
Compact firm body	Uneven grains
Good cohesive body	Grittiness
Uniform grains	Hard
Slightly grainy texture	Loose body and texture
Soft body with optimum grain firmness	Crumbly body
Flavour	
Good pleasant moderately sweet taste	Off flavour
Caramelized flavour	Added synthetic flavour
Rich, creamy flavour	Unclean taste and flavour
Good roasted cereal flavour blended with flavour of ghee	Intense sweetness
	Lack of cooked flavour
	Lack of freshness

Table 6 : Sensory attributes of *Rava burfi* and *Mawa burfi*

Parameter	*Rava burfi*	*Mawa burfi*	S.E.±	C.D. (P=0.05)	CV %
Flavour	8.22±0.20	8.09±0.08	0.04	NS	1.26
Body and texture	8.16±0.15	8.20±0.19	0.06	NS	1.95
Colour and appearance	8.44±0.10	8.50±0.09	0.03	NS	1.01
Overall acceptability	8.48±0.06	8.30±0.10	0.03	NS	0.99

NS=Non-significant

Table 7 : Calculated calorific value of *Rava burfi* and *Mawa burfi* (per 100 g product)

Sr. No.	Component (%)	*Rava burfi*	Calories (kcal)	*Mawa burfi*	Calories (kcal)
1.	Fat	18.40	161.74	23.53	206.83
2.	Total protein	9.47	40.44	12.64	53.97
3.	Lactose	10.43	40.36	19.49	75.43
4.	Starch	17.72	75.66	-	-
5.	Added sugar	22.23	86.03	23.56	91.18
Total calories (kcal)			404.23		427.41

Table 8 : Estimated cost of raw materials required for one kg *Rava burfi* and one kg *Mawa burfi*

Ingredients	Rate (Rs. per kg)	*Rava burfi*		*Mawa burfi*	
		Quantity (kg)	(Rs.)	Quantity (kg)	(Rs.)
Milk (4.5 % fat and 8.5 % MSNF)	46	1.707	78.55	3.94.	181.03
Sugar	40	0.187	7.49	0.24	9.45
Rava	44	0.250	11.00	-	-
Liquid glucose	100	0.036	3.62	-	-
Ghee	400	0.100	40.00	-	-
Total			140.65		190.48

their high nutritional quality. The combination of lysine rich milk protein with lysine deficient cereal protein has a kind of synergistic effect that imparts a high nutritional value to the mixed protein of the product.

Rava Burfi is one such product which contains a combination of milk as well as cereal proteins. The serving size of *Burfi* is 30 g (Aneja *et al*., 2002).

The energy value was calculated by taking energy value for fat, protein and carbohydrates as follows: fat, 8.79; protein, 4.27 and carbohydrate, 3.87 kcal/g.

Based on the above data, the energy value of *Mawa burfi* containing 23.53 % fat had a calorific value of 427.41 kcal/100g and *Rava burfi* has calorific value of 404.23 kcal/100g (Table 7).

Comparison of cost of raw ingredients of *Rava burfi* and *Mawa burfi :*

The total cost of raw materials required for manufacture of both types *viz.*, *Rava burfi* and *Mawa burfi* is presented in Table 8. As can be seen from Table 8 there is a 26.16 % reduction in cost of raw materials of *Rava burfi* compared to *Mawa burfi.*

Semolina constituted to about one fourth of the solids of *Rava burfi*. The quantity of standardized milk (4.5 % fat and 8.5 % MSNF) required to prepare one kg *Mawa burfi* is about 2.3 times more than that required for *Mawa burfi*. The reduction in cost of *Rava burfi* is mainly attributed to reduction in the cost of milk solids which is about 12 times more than semolina.

Conclusion :

It was found that the sensory scores of *Rava burfi* were at par (P<0.05) with *Mawa burfi*. The per cent fat, protein, ash, added sugar and lactose were found significantly (P<0.05) lower in *Rava burfi* compared to *Mawa burfi.* Crude fiber and starch which were present in *Rava burfi* were absent in *Mawa burfi*. Amongst all the physico-chemical properties pH, FFA and TBA were found higher where as acidity, water activity, soluble nitrogen and HMF were found lower in *Rava burfi* compared to *Mawa burfi*. All the rheological properties viz. stiffness, hardness, chewiness, gumminess, adhesiveness, cohesiveness and springiness of *Rava burfi* were lower than *Mawa burfi.* The standard plate count of *Rava burfi* was found significantly lower than *Mawa burfi*. The yield of *Rava burfi* was 58.48 kg/100 kg milk vs 25.45 kg/100 kg milk *for Mawa burfi*. The approximate cost of raw materials required for one kg *Rava burfi* was Rs. 140.65 per kg which is lower than the *Mawa burfi* (*i.e.* Rs. 190.48 per kg).

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