Physico-Chemical Quality of Milk Cake

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ABSTRACT

The samples of milk cake marketed in different zones of Agra city and Prepared in the laboratory as control samples were examined and analysed for physical quality viz. colour, flavor and body and texture and for chemical quality viz., total solids, moisture, fat, lactose, sucrose, acidity and Ash content. The control samples prepared in laboratory were superior to Market samples in respect to physical and chemical quality.

Key words: Milk cake; Moisture; Fat; Lactose; Sucrose; Acidity;

The common indigenous concentrated milk products of Northern India are rabri, Khurchan, khoa and milk cake etc. Milk based sweets like Gulabjamun, Ladoo, Burfi etc. and Bengoli sweets like rasgoola and sandesh Are also popular throughout India.

Milk cake is an indigenous milk product popular in Northern India. It is prepared from denedar from of Khoa and sugar mix, but a part of mass in aramalised more intensively and then layered between the less caramalised Portion of the product. The product occupies its importance from both Dietary and economic point of view. The product is typified by well defined Grains and having more pronounced caramal flavor.

METHODOLOGY

Preparation of control samples: The control of milk cake were prepared in the laboratory Using the method of Sukumar, De (1988). The samples of milk cake collected from market and prepared in the Laboratory were examined and analysed for following attributes of quality.

Physical quality: The samples of milk cake were examined by a panel of judges drawn From the dept of AH & Dairying, R.B.S. College Bichpuri Agra for Colour, flavor and body and textures.

Chemical analysis: The total solids and moisture of the product were determined as Described by IS : 2802-1964. The fat content of product was determined by Roese Gottlieb Method (IS : 4079-1967). The lactose content of product was Determined according to the method of originally due to schaffer and Hartman and described by Knowles and Watkin (1947). The sucrose content Of milk cake was determined according to “Lane Eynon Method.” The ash Content of product was determined according to AOAC (1970). The acidity Of product was determined according to IS : 1165-1967.

RESULTS AND DISCUSSION

The sensory/physical quality of milk cake prepared in the laboratory Was good to that of collected from market (from different zones) in respect to colour, flavour and body texture (Table-1). The control samples having Light brown colour, pleasant flavour and semihard body and texture, while Market samples having caramelised and dark brown colour, cooked and burnt flavour and hard body and texture.

The total solids content of milk cake was higher in market samples (77.05± 2.85% in zone I and 74.10±1.61% in zone II) than that in control Samples (73.30±1.61%) The literature is meager on milk cake to compare The data. However, these results are in fair agreement of Dustur and Lakhani (1971) reported for total solid in khoa. Similarly, the moisture content was Slightly higher in control samples 26.70±1.61% than market samples as 23.60±3.35 and 25.90±6.97%, respectively in samples of zone I and II. The Fat content of product was 16.40±0.66% in zone I and 17.20±0.91% in zone II. in control samples it was 23.60±0.66%, which was higher than that in Market samples. The published literature on fat of milk cake is not available. However, the results on present finding on fat content are slightly lower in Both type of samples than that
reported by Dustur and Lakhani (1971), Ghodekar et al. (1974), Jailakhani and De (1979), Kumar and Srinivasan (1982) and Ghatak and Bandopadhyay (1989) for khoa samples. However, Control samples had fat content in tune of Rajorhia (1971) reported for khoa samples. The lactose content was higher (19.33+ 1.18%) in control samples than that 13.74+ 1.53 and 14.29+ 0.69% respectively in market samples of Zone I and II. Published literature is not available on lactose content of milk cake. However, these results are higher than that of Ghodekar et al. (1974) reported for khoa and lower than that of Jai Lakhani and De (1979) reported for fat content in khoa prepared from goat milk. The sucrose content of market samples as 29.34+ 1.18% in zone I and 25.40+1.58% in zone II was higher than 24.52+ in control samples. The published literature is not available on sucrose content of milk cake to compare present findings. The acidity content 0.36+0.03% and 0.47+0.05% in market samples of zone I and II was higher than 0.22+0.02% in control samples. Published data are Not available on acidity of milk cake to compare present data. However, Present results on acidity are lower in both the market and control samples Than that reported by Ghatak and Bandopadhyay (1989) for acidity of Khoa Samples. The ash content of 2.75+0.62% in zone I 3.50+29% in zone II of Market was higher than 2.45+0.47% in control samples. Data on this aspect are not available to compare present findings. However the results of market Samples are in fair agreement and slightly lower in control samples than that reported by Dustur and Lakhani (1971) for ash content of Khoa samples.

The analysis of variance (Table-3) revealed that the total solids, Moisture of market and control samples differed insignificantly. But the fat Content, lactose, sucrose and ash content differed significantly at (p<0.01) And (p<0.05) in market in control samples. The acidity of milk cake of Market samples and control samples differed significantly (p<0.05). But the Ash content did not differ significantly. It is concluded from present findings that control samples were Superior in all respect of physical and chemical quality to that of market Samples. It is generally found that halwais prepared the samples of product from admixed milk of low quality. A good quality milk cake could be made using buffalo milk by making dededar khoa and adding sugar as per likeness of the consumer.

REFERENCES


