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Selection of form of date palm (*Phoenix dactylifera* L.) fruit to be used for preparation of *peda*

BV Sonwalkar, KD Chavan and PU Wakde

Abstract

The Present investigation was conducted in the laboratories of Dairy Science, Department of Animal Husbandry and Dairy Science, Mahatma Phule Krishi Vidyapeeth, Rahuri, Dist. Ahmednagar (MS), India during the year 2020-2021.

The main objective of present research work was to optimize the level of addition of date (*Phoenix dactylifera* L.) form in *peda*. The different forms namely, date powder, date paste and date syrup were used in the study. Nine point hedonic scale was used to record the sensory characteristics of developed *peda*. The mean sensory score for colour and appearance, body and texture, flavour and overall acceptability of fresh *peda* samples were ranged from 6.50 to 7.20, 6.5 to 7.0, 6.7 to 7.20 and 6.60 to 7.00, respectively for the *peda* prepared from date powder. The *peda* prepared from date paste had 6.6 to 7.0, 6.63 to 7.03, 7.0 to 7.4 and 6.8 to 7.30, respectively. Similarly, 7.23 to 8.30, 7.33 to 8.34, 6.93 to 8.35 and 7.18 to 8.39, respectively, for *peda* prepared from date syrup. The *peda* manufactured from date syrup was found the most acceptable form.

Keywords: Date powder, date paste, date syrup, sensory quality, *Peda*

Introduction

Peda is widely popular indigenous dairy product prepared throughout the country. This sweetmeat is widely consumed in India and gaining popularity in other countries as well (Garg and Mandokhot, 1984) [7]. *Khoa* is highly nutritious food having 90 per cent digestibility coefficient of proteins and 69 per cent biological value (Balasubramanian *et al.*, 1955) [1]. *Khoa* based sweets are also rich in minerals like calcium, phosphorous, iron, *etc.* Although milk is a poor source of iron, milk sweets like *peda* and *burfi* provide adequate amount of iron which may be entering in them during the process of preparing *khoa* in an open vessel made of iron.

Peda is popular indigenous *khoa* based heat desiccated milk product, which is prepared from cow milk, buffalo milk or a combination thereof. It has been reported that the quantity of *pedha* produced in India exceeds any other indigenous milk based sweet using *khoa* as a raw material (Mahadevan, 1991). *Peda* is indisputable product having economic importance especially in rural parts of India, as it provides good means of utilizing economically small quantity of surplus milk. Economically, it has a unique importance in the market because it is liked by all classes of people. *Peda* has special importance in various celebrations like wedding, inaugural functions, to celebrate success in examinations or in such other events. Hindus, mostly offer *peda* to God as a 'Prasad' which is then distributed to public.

Peda is highly nutritious product as it contains almost all milk solids plus sugar and other additives. It is indigenous milk sweet prepared by heating a mixture of *khoa* and sugar until the desired granular, hard texture and flavor develops. Several varieties of *peda* are sold in the market namely, in Uttar Pradesh Mathura *peda* are small and round in shape, have caramel flavour and have a longer keeping quality. In Gujrat and western part of the country white *pedas* are preferred, which are usually made from buffalo milk. Certain other varieties of *pedha* like Elaichi *pedha*, Malai *pedha*, Keshar *pedha*, Rajkot *pedha* *etc.* are also found in the markets of different parts of the India. There are different types of famous *peda* brands recognized by locality or producer. To place few examples from Maharashtra are Chitale, Ghodake and Kaka halwai *peda*. All the types of *peda* have distinct characteristics and method of manufacture vary from region to region. Other ingredients are also incorporated to cater the special need of flavour, body and texture characteristics. Many research workers have tried to utilize different ingredients in the form of vegetables, fruits and nuts in milk products such as gajar ka halwa, kaju *burfi* and sohan halwa, with an aim to improve nutrient, fiber content, texture, mouthfeel and flavor.

Cereals like rice and wheat in the form of maida and suji was also tried in milk products, such as *kheer*, *gulabjamun* (De *et al.*, 1980) [3]. Cereals, medicinal plants, nuts and fruits like dried date in brown *peda* (Gotarne, 2011) [10], rice bran brown *peda* (Dixit, 2017) [5], ginger *peda* (Gavhane *et al.*, 2015) [8], bottle gourd pulp *peda* (Ghule *et al.*, 2013) [9], red pumpkin pulp *peda* (Bhutkar *et al.*, 2015) [2], inulin fiber *peda* (Sankpal *et al.*, 2018) [14], wheat bran *peda* (Shinde *et al.*, 2015) [15] *etc.*

The date palm (*Phoenix dactylifera* L.) is one of the major fruit trees in Egypt (EI-Assar *et al.*, 2005) [6]. The date palm (*Phoenix dactylifera* L.) belongs to the Arecaceae (or palmae) family and consists of three parts: flesh with thin crust, date pit, and cap. The rest of date weight includes protein, fat, crude fibre, minerals, different vitamins (especially vitamin B), tannins, and many other components (Hashempoor, 1999) [11].

Materials and Methods

The material used and methods employed for conducting the experiments are as follows.

Materials

Fresh, clean, composite samples of buffalo milk utilized for preparation of *peda* was procured from local source. The khunti with flattened end with a relatively sharp edge with long handle was used for stirring cum-scraping the milk. Good quality, clean, crystalline, white cane sugar was procured from local market. Good quality fresh date syrup

manufactured by Lion Dates Impex Pvt Ltd. Chennai was used during study. An iron karahi having 31 cm diameter and 8.5 cm depth was used for the desiccation of milk. Lab HOSP make hot air oven Mumbai (India) was used for determination of moisture and drying purpose. Electronic weighing balance manufactured by CONTECA, Pune was used for weightment purpose. Tempo make, Nashik (India) muffle furnace was used for determination of ash content in the samples. A colony counter with magnifying len was used for counting the colonies formed by microorganisms. An instrument manufactured by Kirloskar Electronic Ltd., Mumbai (India) was used for microbiological work. A digital pH meter manufactured by Lab Techno, Mumbai (India) was used for recording of pH. Rectangular cardboard boxes with butter paper lining was used as packaging material for *peda*. Stainless steel trays with 45 cm length, 25 cm width and 2 cm height were used for keeping *peda* samples. B.O.D. Incubator manufactured by STEELMET NOVATECH, Pune (India) was used for incubation purpose. Autoclave manufactured by Macro Scientific Works Pvt Ltd. (MSW), New Delhi was used for sterilization of media and glasswares. Whatman no.41 type filter papers were used.

Methods

Preparation of date *peda*

The *peda* samples were prepared as per the procedure described by Dharma Pal *et al.*, (1998) [4] with suitable modifications.

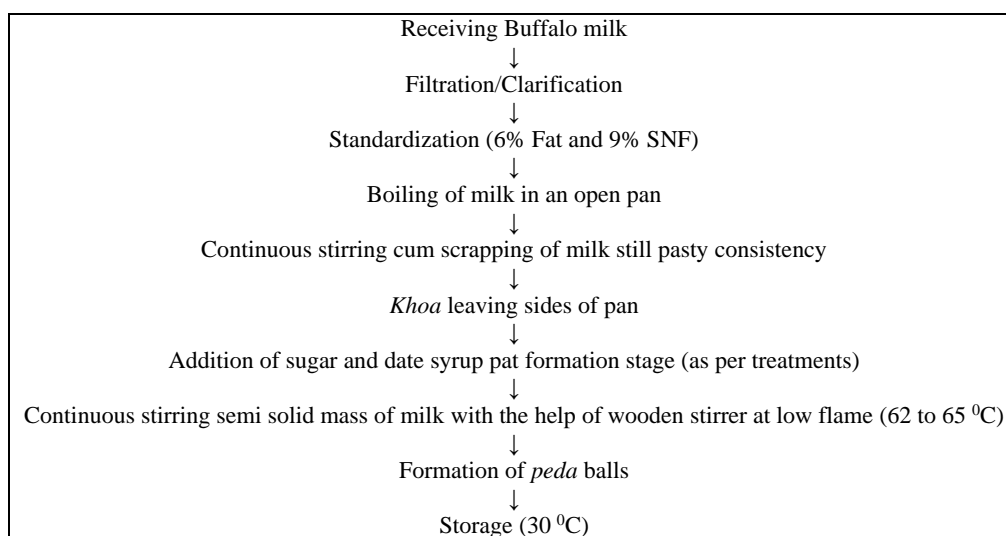


Fig 1: Flow diagram for manufacturing of *peda*

Sensory evaluation

The samples of *peda* under pre-experimental and experimental trails were subjected to the organoleptic evaluation by adopting 9 point hedonic scale as per IS: 6273 Part I and Part II (1971). A panel of five semi-trained judges was formulated for this purpose. The samples were coded every time to conceal their identity and offered to the judges for evaluation of the quality attributes.

The trials were conducted to choose the form of date to be used in the preparation of *peda*. The *peda* samples were subjected to sensory evaluation. On the basis of results of sensory evaluation, the treatments were chosen for experimental trails.

Use of date powder

The *peda* samples were prepared without date powder (A₀),

5% (A₁), 10% (A₂), 15% (A₃), 20% (A₄), 25% (A₅) and 30% (A₆) date powder. The sugar level 25% of *khoa* was kept constant for all the treatments.

A₀: *Khoa* + without date powder + 25% sugar

A₁: *Khoa* + Date powder @ 5% on *khoa* weight basis + 25% sugar

A₂: *Khoa* + Date powder @10% on *khoa* weight basis + 25% sugar

A₃: *Khoa* + Date powder @15% on *khoa* weight basis + 25% sugar

A₄: *Khoa* + Date powder @20% on *khoa* weight basis + 25% sugar

A₅: *Khoa* + Date powder @25% on *khoa* weight basis + 25% sugar

A₆: *Khoa* + Date powder @30% on *khoa* weight basis + 25% sugar

Use of date paste

The *peda* samples were prepared without date paste (B₀), 5% (B₁), 10% (B₂), 15% (B₃), 20% (B₄), 25% (B₅) and 30% (B₆) date paste. The sugar level 25% of *khoa* was kept constant for all the treatments.

B₀: *Khoa* + without date paste + 25% sugar

B₁: *Khoa* + Date paste @ 5% on *khoa* weight basis + 25% sugar

B₂: *Khoa* + Date paste @ 10% on *khoa* weight basis + 25% sugar

B₃: *Khoa* + Date paste @ 15% on *khoa* weight basis + 25% sugar

B₄: *Khoa* + Date paste @ 20% on *khoa* weight basis + 25% sugar

B₅: *Khoa* + Date paste @ 25% on *khoa* weight basis + 25% sugar

B₆: *Khoa* + Date paste @ 30% on *khoa* weight basis+ 25% sugar

Use of date syrup

The *peda* samples were prepared without date syrup (C₀), 5% (C₁), 10% (C₂), 15% (C₃), 20% (C₄), 25% (C₅) and 30% (C₆) date syrup. The sugar level 25% of *khoa* was kept constant for all the treatments.

C₀: *Khoa* + without date syrup+ 25% sugar

C₁: *Khoa* + Date syrup @5% on *khoa* weight basis + 25% sugar

C₂: *Khoa* + Date syrup @10% on *khoa* weight basis + 25% sugar

C₃: *Khoa* + Date syrup @15% on *khoa* weight basis + 25% sugar

C₄: *Khoa*+ Date syrup @20% on *khoa* weight basis+ 25% sugar

C₅: *Khoa* + Date syrup @25% on *khoa* weight basis + 25% sugar

C₆: *Khoa*+ Date syrup @30% on *khoa* weight basis+ 25% sugar

Statistical design and analysis of data

The experiment was laid out in completely Randomized Design (CRD) with four replications for pre-experimental and five replications for experimental trials. The data was tabulated and analyzed according to Snedecor and Cochran (1994)^[16].

Results and Discussion

The results of the present investigation are presented and discussed here under following headings.

Use of date powder

The *peda* samples were prepared without date powder (A₀), 5% (A₁), 10% (A₂), 15% (A₃), 20% (A₄), 25% (A₅) and 30% (A₆) date powder. The 25% sugar of *khoa* was kept constant for all treatments.

A₀: *Khoa* + without date powder + 25% sugar

A₁: *Khoa* +Date powder @ 5% on *khoa* weight basis + 25% sugar

A₂: *Khoa* +Date powder @ 10% on *khoa* weight basis + 25% sugar

A₃: *Khoa* +Date powder @15% on *khoa* weight basis + 25% sugar

A₄: *Khoa*+Date powder @ 20% on *khoa* weight basis + 25% sugar

A₅: *Khoa* +Date powder @ 25% on *khoa* weight basis + 25% sugar

A₆: *Khoa* +Date powder @ 30% on *khoa* weight basis + 25% sugar

Sensory evaluation

Colour and appearance

The colour and appearance are important sensory attributes as far as consumer is concerned. The colour and appearance score of date powder *peda* sample is presented in the Table 1. It is seen that the mean sensory score for colour and appearance of *peda* samples prepared using date powder ranged from 6.50 (A₅ and A₆) to 7.20 (A₁). The colour and appearance score of the product significantly ($P < 0.05$) influenced due to addition of date powder in the *peda*. The colour and appearance score significantly declined as the level of addition of date powder increased. The mean colour and appearance score for *peda* samples were 8.45, 7.20, 6.90, 6.90, 6.80, 6.50 and 6.50 for the treatments A₀, A₁, A₂, A₃, A₄, A₅ and A₆, respectively.

The treatments A₀, A₁, A₂, A₃, A₄, A₅ and A₆ were significantly ($P < 0.05$) differed. The colour and appearance score for the treatment A₀ (control) had highest score (8.45).

The colour of the treatments A₁ to A₆ was appeared light brown to dark brown as the level of date powder increased. It is probably due to the intensity of brown colour of date powder. Similarly there was small dark tiny spoty appearance was observed due to small particles of date powder.

Due to above remarks of panelist the sensory score for colour and appearance was not above 7.20. The colour and appearance score of A₂ to A₆ ranked in between 'like slightly to like moderately'. The *peda* sample A₁ ranked 'like moderately'.

Table 1: Sensory quality of *peda* prepared using date powder (Sensory score out of 9)

Treatments	Colour and Appearance	Body and texture	Flavour	Overall acceptability
A ₀	8.45 ^a	8.50 ^a	8.50 ^a	8.50 ^a
A ₁	7.20 ^b	7.00 ^b	7.20 ^b	7.00 ^b
A ₂	6.90 ^c	6.80 ^c	7.20 ^b	7.00 ^b
A ₃	6.90 ^c	6.60 ^d	7.00 ^c	7.03 ^b
A ₄	6.80 ^c	6.60 ^d	6.80 ^d	6.80 ^c
A ₅	6.50 ^d	6.50 ^d	6.80 ^d	6.80 ^c
A ₆	6.50 ^d	6.50 ^d	6.70 ^d	6.60 ^d
S.E.±	0.036	0.038	0.041	0.038
CD at 5%	0.106	0.113	0.122	0.114

Body and Texture

Body and texture is the second most important characteristics of the product that determine the consumer's acceptability of

any food product.

The body and texture score of date powder *peda* samples is depicted in the Table 1. The mean body and texture score for

peda samples were 8.50, 7.00, 6.80, 6.60, 6.60, 6.50 and 6.50 for the treatments A₀, A₁, A₂, A₃, A₄, A₅ and A₆, respectively. It was observed that the sensory score for body and texture of *peda* samples significantly declined due to addition of date powder in the *peda* samples. The treatments A₀, A₁, A₂, A₃, A₄, A₅ and A₆ were significantly ($P < 0.05$) differed. The body and texture score for the treatment A₀ had highest score (8.50). The addition of date powder in the *peda* significantly declined the body and texture. The *peda* prepared by using date powder produced rough body and texture, harder and sticky body and compact texture with declined normal softness of *peda* resulted in decrease sensory score. The sensory score declined from 8.50 (A₀) to 6.50 (A₅ and A₆). The body and texture became harder in all the *peda* samples prepared. It might be due to absorption of moisture by the date powder incorporated in the *peda* manufacturing process. Ultimately the sensory score given to the *peda* samples by the panelist for body and texture was not above 7.00. The body and texture score of A₂ to A₆ ranked in between 'like slightly to like moderately'. The *peda* sample A₁ ranked 'like moderately'.

Flavour

Flavour is the sum total of the aromatics released from the product inside the mouth, taste sensations released from the soluble and chemical feel factors. The flavour score for the *peda* samples prepared using date powder is depicted in the Table 1. The mean flavour score for *peda* samples were 8.50, 7.20, 7.20, 7.00, 6.80, 6.80 and 6.70 for the *peda* samples A₀, A₁, A₂, A₃, A₄, A₅ and A₆, respectively. The flavour score of date powder *peda* significantly declined as the level of date powder increased. It was observed that the flavour scores of the *peda* samples declined from 8.50 (A₀) to 6.70 (A₆). The flavour score of A₁ to A₆ ranked in between 'like slightly to like moderately'. The flavour of the *peda* samples significantly ($P < 0.05$) influenced due to addition of date powder.

Overall acceptability

Overall acceptability is indicative parameter of sensory quality of products in totality, and consists of colour and appearance, body and texture, flavour and overall acceptability characteristics which represent the total performance of the product in the mind of judges as well as consumers.

The overall acceptability score for the date powder *peda* is presented in the Table 1. The mean overall acceptability score for *peda* samples were 8.50, 7.00, 7.00, 7.03, 6.80, 6.80 and

6.60 for the *peda* samples A₀, A₁, A₂, A₃, A₄, A₅ and A₆, respectively. The addition of date powder in the *peda* samples significantly ($P < 0.05$) influenced the overall acceptability of the product. The overall acceptability declined as the level of date powder increased. The overall acceptability of date powder added samples declined from 7.00 (A₁) to 6.60 (A₆). The overall acceptability score of A₁ to A₆ ranked in between 'like slightly to like moderately'. The sensory quality of the product was ranked in between 'like slightly to like moderately'. Hence, considering the above facts, the use of date powder in the preparation of *peda* was not considered.

Use of date paste

The *peda* samples prepared without date paste (B₀), 5% (B₁), 10% (B₂), 15% (B₃), 20% (B₄), 25% (B₅) and 30% (B₆) date paste. The 25% sugar of *khoa* was kept constant for all treatments.

B₀: *Khoa* + without date powder + 25% sugar

B₁: *Khoa* + Date paste @ 5% on *khoa* weight basis + 25% sugar

B₂: *Khoa* + Date paste @ 10% on *khoa* weight basis + 25% sugar

B₃: *Khoa* + Date paste @ 15% on *khoa* weight basis + 25% sugar

B₄: *Khoa* + Date paste @ 20% on *khoa* weight basis + 25% sugar

B₅: *Khoa* + Date paste @ 25% on *khoa* weight basis + 25% sugar

B₆: *Khoa* + Date paste @ 30% on *khoa* weight basis + 25% sugar

Colour and appearance

The colour and appearance of the *peda* samples prepared with addition of date paste is presented in the Table 2. It was revealed that the colour and appearance score of the *peda* samples were 8.30, 7.00, 7.00, 6.80, 6.78, 6.78 and 6.60 for the B₀, B₁, B₂, B₃, B₄, B₅ and B₆ treatments, respectively. The colour and appearance score of *peda* samples significantly ($P < 0.05$) differed due to addition of date paste in the *peda*. The treatment B₀ had highest colour and appearance score (8.30). As the level of date paste increased the colour of the *peda* samples become dark brown and become unacceptable. The colour and appearance score significantly declined as the level of addition of date paste increased. The dark brownish coloured small and tiny spots were observed in *peda* samples. It is also reflected on the score given to the *peda* samples by the panelist. The colour and appearance score of B₁ to B₆ ranked in between 'like slightly to like moderately'.

Table 2: Sensory quality of *peda* prepared using date paste (Sensory score out of 9)

Treatments	Colour and Appearance	Body and texture	Flavour	Overall acceptability
B ₀	8.30 ^a	8.40 ^a	8.50 ^a	8.50 ^a
B ₁	7.00 ^b	7.03 ^b	7.40 ^b	7.30 ^b
B ₂	7.00 ^b	7.00 ^{bc}	7.40 ^b	7.30 ^b
B ₃	6.80 ^c	6.86 ^c	7.35 ^b	6.90 ^c
B ₄	6.78 ^c	6.70 ^d	7.35 ^b	6.90 ^c
B ₅	6.78 ^c	6.63 ^d	7.00 ^c	6.80 ^c
B ₆	6.60 ^d	6.60 ^d	7.00 ^c	6.80 ^c
S.E. +	0.038	0.049	0.055	0.043
CD at 5%	0.113	0.144	0.163	0.128

Body and Texture

The body and texture of the *peda* samples prepared with addition of date paste is depicted in the Table 2. It was

observed that the body and texture scores of the *peda* samples were 8.40, 7.03, 7.00, 6.86, 6.70, 6.63 and 6.60 for the B₀, B₁, B₂, B₃, B₄, B₅ and B₆ treatments, respectively. The body and

texture of the *peda* samples significantly ($P < 0.05$) influenced due to addition of date paste.

Increased date paste content in *peda* adversely affected the body. The *peda* prepared by using date paste produced rough body and texture, harder with sticky body and compact texture with declined richness of softness resulting in lower acceptability score. The texture of the product became sticky and harder. Which is also reflected on sensory score given to the treatments by the panelist. The stickiness increased with increase in the level of date paste. The body and texture became harder in all the *peda* samples prepared. It might be due to loss of moisture immediately at faster rate. Due to this, the sensory score for body and texture was not above 7.03. The body and texture score of B₂ to B₆ ranked in between 'like slightly to like moderately'.

Flavour

The flavour score for the *peda* samples prepared with addition of date paste is depicted in the Table 2. The mean flavour score for *peda* samples were 8.50, 7.40, 7.40, 7.35, 7.35, 7.00 and 7.00 for the treatments B₀, B₁, B₂, B₃, B₄, B₅ and B₆, respectively. The sensory score for flavour of *peda* samples significantly ($P < 0.05$) influenced due to addition of date paste. The control sample had highest flavour score (8.50). The flavour score of B₁ to B₄ ranked in between 'like moderately to like very much' and B₅ and B₆ ranked as like moderately'.

Overall acceptability

The overall acceptability score for the *peda* samples prepared with addition of date paste is depicted in the Table 2. The mean overall acceptability score for *peda* samples was 8.50, 7.30, 7.30, 6.90, 6.90, 6.80 and 6.80 for B₀, B₁, B₂, B₃, B₄, B₅ and B₆, respectively. The addition of date paste in the *peda* samples significantly ($P < 0.05$) influenced the overall acceptability of the product. The *peda* sample B₀ had highest overall acceptability score 8.50.

The *peda* prepared by using date paste produced rough body and texture, hard and sticky body and compact texture, dark brownish colour with declined richness of flavour resulting in lowest acceptability score. Due to this, the sensory score for overall acceptability was not above 7.30. The overall

acceptability score of B₁ to B₆ ranked in between 'like slightly to like moderately'. The overall acceptability declined as the level of date paste increased. The overall acceptability of date paste added samples declined from 8.50 (B₀) to 6.80 (B₆).

Use of date syrup

The *peda* samples were prepared without date syrup (C₀), 5% (C₁), 10% (C₂), 15% (C₃), 20% (C₄), 25% (C₅) and 30% (C₆) date syrup. The sugar level 25% of *khoa* was kept constant for all treatments.

C₀: *Khoa* + without date syrup+ 25% sugar

C₁: *Khoa* + Date syrup @5% on *khoa* weight basis + 25% sugar

C₂: *Khoa* + Date syrup @10% on *khoa* weight basis + 25% sugar

C₃: *Khoa* + Date syrup @15% on *khoa* weight basis + 25% sugar

C₄: *Khoa*+ Date syrup @20% on *khoa* weight basis+ 25% sugar

C₅: *Khoa* + Date syrup @25% on *khoa* weight basis + 25% sugar

C₆: *Khoa* + Date syrup @30% on *khoa* weight basis+ 25% sugar

Colour and appearance

The appearance of the product is one of the important factors being the first attribute perceived by the consumer. The colour and appearance score for the *peda* samples prepared with addition of date syrup is depicted in the Table 3. It was revealed that the colour and appearance scores of the *peda* samples 8.45, 8.40, 8.30, 8.28, 8.25, 7.43 and 7.23 for the C₀, C₁, C₂, C₃, C₄, C₅ and C₆ treatments, respectively. The colour and appearance score of *peda* samples significantly ($P < 0.05$) differed due to addition of levels of date syrup in the *peda*. The treatment C₀ had highest colour and appearance score followed by C₁, C₂, C₃, C₄, C₅ and C₆. As the level of addition of date syrup in the product increased the colour of the *peda* samples significantly influenced. The *peda* prepared by using date syrup resulted in pleasant, attractive and good looking colour and appearance. The colour and appearance score of C₂ to C₆ ranked in between 'like moderately to like very much'. The *peda* sample C₁ ranked 'like very much'.

Table 3: Sensory quality of *peda* prepared using date syrup (Sensory score out of 9)

Treatments	Colour and Appearance	Body and texture	Flavour	Overall acceptability
C ₀	8.45 ^a	8.42 ^a	8.38 ^a	8.45 ^a
C ₁	8.40 ^{ab}	7.51 ^d	7.35 ^c	7.38 ^{de}
C ₂	8.30 ^{bc}	7.70 ^c	7.53 ^c	7.55 ^d
C ₃	8.28 ^{bc}	8.00 ^b	8.13 ^b	8.13 ^b
C ₄	8.25 ^c	8.34 ^a	8.35 ^a	8.39 ^a
C ₅	7.43 ^d	8.00 ^b	7.50 ^c	7.83 ^c
C ₆	7.23 ^e	7.33 ^e	6.93 ^d	7.18 ^e
S.E. +	0.047	0.041	0.064	0.078
CD at 5%	0.140	0.123	0.189	0.229

Body and Texture

The body and texture of the product helps in its marketing value. It also shows product's inner makeup. The body and texture score for the *peda* samples prepared with addition of date syrup is given in the Table 3. It was observed that the body and texture scores of the *peda* samples 8.42, 7.51, 7.70, 8.00, 8.34, 8.00 and 7.33 for the C₀, C₁, C₂, C₃, C₄, C₅ and C₆ treatments, respectively. The date syrup produced *peda* having superior rich quality and pleasant, soft body and

smoothness in the texture. The *peda* prepared by using date syrup exhibited firm and best textured *peda*. The body and texture score of *peda* samples significantly ($P < 0.05$) differed due to addition of levels of date syrup in the *peda*. The treatment C₀ (control) had highest body and texture score followed by C₁, C₂, C₃, C₄, C₅ and C₆. The body and texture score of C₁, C₂, C₃, C₅ and C₆ ranked in between 'like moderately to like very much'. The *peda* sample C₁ ranked 'like moderately'.

Flavour

Flavour is probably the important criteria for measuring the quality of product, which in turn determine its acceptability. The flavour score for the *peda* samples prepared with addition of date syrup is given in the Table 3. The mean flavour score for *peda* samples were 8.38, 7.35, 7.53, 8.13, 8.35, 7.50 and 6.93 for the treatments C₀, C₁, C₂, C₃, C₄, C₅ and C₆, respectively.

The flavour score of *peda* samples significantly ($P < 0.05$) differed due to addition of levels of date syrup in the *peda*. The treatment C₀ had highest body and texture score (8.38) followed by C₁, C₂, C₃, C₄, C₅ and C₆. As the level of addition of date syrup in the product increased the flavour of the *peda* samples significantly influenced. The *peda* prepared by using date syrup resulted in superior rich quality and pleasant flavour.

The flavour score of C₁, C₂, C₃, C₅ and C₆ ranked in between 'like moderately to like very much'. The *peda* sample C₁ ranked 'like moderately'.

Overall acceptability

The overall acceptability any product mainly depends upon colour and appearance, body and texture and flavour.

The overall acceptability score for the *peda* samples prepared with addition of date syrup is given in the Table 3. The mean overall acceptability score for *peda* samples were 8.45, 7.38, 7.55, 8.13, 8.39, 7.83 and 7.18 for the treatments C₀, C₁, C₂, C₃, C₄, C₅ and C₆, respectively. The addition of date syrup in the *peda* samples significantly ($P < 0.05$) influenced the overall acceptability of the product. The sample C₆ had lowest overall acceptability scores (7.18). The treatment C₀ had highest overall acceptability score followed by C₁, C₂, C₃, C₄, C₅ and C₆.

The highest overall acceptability score was received to the *peda* sample prepared by using 20% date syrup (8.39). This indicates that optimum date syrup level (20%) had superior overall acceptability. The overall acceptability score of C₂, C₃, C₅ and C₆ ranked in between 'like moderately to like very much'. The *peda* sample C₁ ranked 'like moderately'.

Hence, it is revealed that 20% level of date syrup produced *peda* having superior rich quality and pleasant flavour, soft body and smoother texture, acceptable colour and appearance and superior overall acceptability.

As per the results of sensory evaluation of *peda* samples prepared by using different forms *viz.*, date powder, date paste and date syrup. The result obtained in respect of use of date syrup was found better in all sensory attributes. Hence, the use of date syrup with the levels of *i.e* 15%, 20% and 25% levels were found better.

Conclusions

As per the results of sensory evaluation of *peda* samples prepared by using different forms *viz.*, date powder, date paste and date syrup. The result obtained in respect of use of date syrup was found better in all sensory attributes. Hence, the use of date syrup with the levels of *i.e* 15%, 20% and 25% levels were found better.

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