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## Development of functional chhana podo

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### Abstract

A study was conducted for the development of value added chhana podo by incorporating ragi flour, honey and clove to increase the nutritional and sensory quality. Ragi flour incorporated at the different levels such as 4, 8 and 12 per cent in which 4 per cent secured highest in Sensory evaluation among the different per cent of ragi flour. Honey and clove level 40:0.3, 50:0.4 and 60:0.5 per cent was used, among which 40:0.3 per cent was accepted based on sensory attributes. Finally developed ragi flour, honey and clove enriched functional chhana podo contained 4:40:0.3 secured highest in sensory evaluation among the other sample.

**Keywords:** Functional chhana podo, honey, clove, ragi

### Introduction

India is the world's largest milk patron, producing 198.4 MT and is growing at a compound annual growth rate of 6.62 per cent compared to 827.88 MT worldwide. The per capita availability of milk in India is 406 g/day (BAHS, 2021).

Chhana podo, a popular dairy product of India, is prepared by baking the dough of chhana (heat-acid coagulated milk solids), semolina and sugar. Heat induced moisture loss during baking influences the chain of physico-chemical changes, which in turn determine the quality of the final product (Emerald *et al.*, 2020) [5]. Chhana podo is characterized by a brown crust with white or light brown inner body, has a typical cooked flavour and rich taste. The moist crumb has a moderately spongy cakelike texture and soft body, and is sweet due to the addition of sugar. It is probably the only dairy product prepared by baking. The important step in preparation of Chhana podo is baking. During this step, conductive, convective and radiative heat transfer occurs from the oven chamber to the product surface (Emerald *et al.*, 2020) [5].

Ragi flour in India, grown extensively in various region of India which resembles as a food that supply a major portion of calories and proteins to large segment of population especially for people of low-income groups. In India, Karnataka is the leading producer of ragi flour accounting to 58 per cent of its global production. The production area of ragi flour in India stands sixth after wheat, rice, maize, sorghum and bajra. It contains high levels of fiber, minerals and vitamins and has eight times more calcium than other cereals. It contains important amino acids viz., isoleucine, leucine, methionine and phenylalanine which are deficient in other starchy meals. It is comparable to rice with regards to protein (6-8 per cent) and fat (1-2 per cent) and is superior to rice and wheat with respect to minerals and micronutrient content. Ragi flour has gained importance because of its slowly digestible and resistant starch and has low glycemic index which makes it suitable for diabetic patients (Srivastava *et al.*, 2019) [9].

Honey is an organic natural substance that is produced from the nectar of flowers by *Apis mellifera* (sweet flavour liquid). Sugar contains small quantities of proteins, enzymes, amino acids, minerals, trace elements, vitamins, aroma compounds and polyphenols. It is used for sweetening, colouring and flavouring. Asian countries like Sri-Lanka, India, Nepal and Pakistan it is used as traditional medicine. It is also used as remedy for burns, cataracts, wound healing, ulcers, diabetes, diarrhea, inflammation, gastrointestinal and cardiovascular diseases (Liyanage *et al.*, 2017) [7].

Clove (*Syzygium aromaticum* L.) is a well-known culinary spice that has been used for centuries in folk medicine in many disorders. Interestingly, traditional medicines have used clove since ancient times to treat respiratory ailments, whilst clove ingredients show antiviral and anti-inflammatory properties. Other interesting features are the clove antithrombotic,

immunostimulatory and antibacterial effects (Vicidomini *et al.*, 2021). Clove is mentioned to improve the blood supply to both the brain and the heart and is used as a tonic for the cardiovascular system (Bahram soltani *et al.*, 2020) [2]. Clove essential oil (CEO) has eugenol and oregano essential oil (OEO) has carvacrol and thymol as an active 3 compound. These both essential oils have been identified for outstanding antioxidant and antimicrobial activities against a wide range of food spoilage microorganisms (Karunamay *et al.*, 2020) [6].

## Materials and Methods

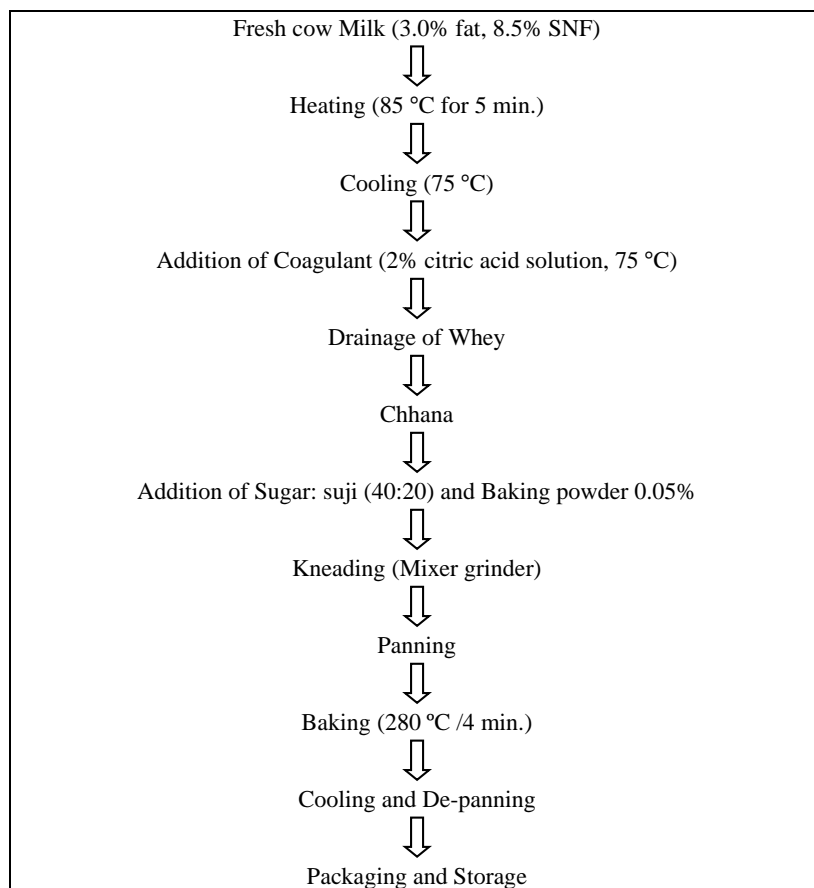
### Materials

Fresh raw milk was procured from the Students' Experimental Dairy Plant (SEDP) of Dairy science college, Hebbal, Bengaluru, and Karnataka veterinary animal and fisheries sciences university, Bengaluru, and used for the preparation of chhana podo. Ragi flour was purchased from Wallmart (choicer brand) in Bengaluru. Honey purchased from

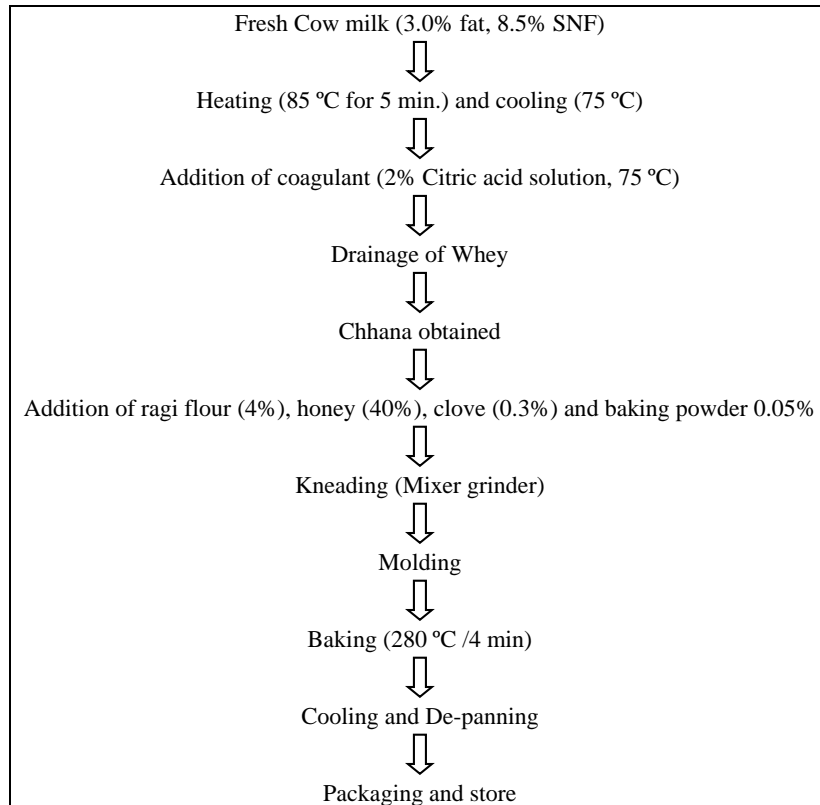
Hexaapiarium Pvt. Ltd., Fresh Foods in Bengaluru. Clove purchased from D-mart (choicer brand) in Bengaluru. Purchased from the local market, “choicer brand” in Bengaluru. Suji purchased from local market, “choicer brand” in Bengaluru. Baking powder purchased from Baker colours and flavours, local market in Bengaluru.

### Method of preparation

The product was prepared as per the procedure followed by Mukhopadhyay *et al.*, 2015 with slight modification. Fresh cow milk was heated taken to 85 °C for 5 min. and then cooled to 75 °C. Slowly add a 2 per cent citric acid solution at 75 °C as a coagulant till complete coagulation and drainage of whey. Sugar of 40%, suji (20%) and 0.05% baking powder on a chhana basis was the mixture was kneaded, baked (280 °C) it and cooled chhana podo and removed it from the cooking utensil (de-panning). This chhana podo packaged then judging.



**Flow Diagram for the manufacture of control chhana podo**



**Flow Diagram for the manufacture of functional chhana podo**

### Sensory evaluation

In this study the organoleptic quality of control and treated samples of chhana podo was evaluated at by a panel of five semi trained judges on a 9-point hedonic scale where a score of 5 point represented 'dislike extremely' and score of 9 point represented 'like extremely'. The samples for evaluation were marked suitably before serving the samples to the judges for sensory evaluation. The samples were evaluated in a sensory evaluation room with appropriate facilities.

### Statistical analysis

Significant difference between the values was verified by one way analysis of variance (ANOVA) and comparison between means was made by critical difference value by using R software [R. version 4.1.2 (2021-11-01), copyright © 2021, R foundation].

### Result

#### Effect of various levels of Ragi flour on the sensory attributes of chhana podo.

Table 1 disports the average scores obtained for control and treated samples for different sensory attributes of control and experimental chhana podo by incorporation of various levels of ragi.

#### Colour and Appearance

The mean scores for colour and appearance of control sample were 8.50 as against 8.20, 7.55 and 7.12 for chhana podo incorporated with 4, 8 and 12 per cent levels of ragi flour respectively. The highest score (8.20) received to treatment chhana podo prepared with 4 per cent ragi flour level as compare to other treatment. Statistical analysis revealed that a different level of ragi flour had significant difference ( $P=0.05$ ) effect on colour and appearance of chhana podo.

### Body and texture

It was observed that the mean score for body and texture of chhana podo prepared with different levels of ragi flour were 8.34, 8.15, 7.29 and 7.10 in 0, 4, 8 and 12 per cent of ragi flour in treated sample respectively. The highest score for body and texture was noticed in 8.15 received to treatment chhana podo prepared with 4 per cent ragi flour level as compare to other treatment and Statistical analysis revealed that a different level of ragi flour had significant difference ( $P=0.05$ ) effect on body and texture of chhana podo.

### Flavour

The mean score for flavour of chhana podo prepared with different levels of ragi flour were 8.25, 7.13, 7.25 and 8.10 for 0, 4, 8 and 12 respectively. The highest flavour score (8.25) in control chhana podo sample treatments were found significant difference ( $P=0.05$ ) compared with the control sample.

### Overall Acceptability

It is revealed that, the mean score for overall acceptability of chhana podo prepared with different levels of chhana podo were 8.36, 8.15, 7.36 and 7.11 for 0, 4, 8 and 12 per cent of ragi flour in treated samples respectively. Chhana podo samples prepared with 4 per cent chhana podo obtained highest score (8.15) among other treatment sample and significant difference ( $P=0.05$ ) compared to other samples.

### Effect of different levels of honey and clove on sensory quality of chhana podo

The sensory scores pertaining to colour and appearance, body and texture, flavour and overall acceptability of product as judged by a panel of four judges during sensory evaluation of control and experimental chhana podo by incorporation of various levels of honey and clove, presented in Table 2.

**Colour and Appearance**

The mean scores for appearance of control samples were 8.50 as against 8.45, 7.35 and 7.22 for Chhana podo incorporated 40, 50 and 60; 0.3, 0.4 and 0.5 per cent honey and clove respectively. The highest score (8.45) with respect to colour and appearance was recorded for 40:0.3 per cent level of honey and clove as compare to other treatment chhana podo. Statistical analysis revealed that a different level of honey and clove had significant difference ( $P=0.05$ ) among control and T<sub>2</sub>, T<sub>3</sub> samples with respect to colour and appearance of chhana podo.

**Body and Texture**

The mean sensory scores for body and texture of control sample 8.34 as against 8.25, 7.34 and 7.15 for chhana podo incorporated with 40, 50 and 60; 0.3, 0.4 and 0.5 per cent honey and clove respectively. The control sample and incorporation of different level of honey and clove to chhana podo were found to be significant difference. The highest score (8.25) with respect to body and texture was recorded for 40:0.3 per cent level of honey and clove as compare to other treatment chhana podo. Statistical analysis revealed that a different level of honey: clove had significant difference ( $P=0.05$ ) among control and T<sub>2</sub>, T<sub>3</sub> samples with respect to body and texture of chhana podo.

**Flavour**

The mean sensory scores for flavour of control sample was 8.25 as against 8.30, 7.25 and 7.18 for chhana podo incorporated with 40, 50 and 60; 0.3, 0.4 and 0.5 per cent honey and clove respectively. The highest score with respect to flavour was 8.30 recorded for chhana podo with 40:0.3 per cent levels of honey and clove. Statistical analysis revealed that a different level of honey and clove had significant difference ( $P=0.05$ ) among control and T<sub>2</sub>, T<sub>3</sub> samples.

**Overall Acceptability**

The sensory scores given for overall acceptability of chhana podo was 8.36 for control as against 8.33, 7.31 and 7.18 with 40, 50 and 60; 0.3, 0.4 and 0.5 per cent honey and clove respectively. Among treatments, highest score of 7.31 with respect to overall acceptability was recorded for chhana podo incorporated with 40:0.3 per cent levels of honey and clove. Statistically, there was significant difference ( $P=0.05$ ) between control and T<sub>2</sub>, T<sub>3</sub> samples with respect to overall acceptability.

**Effect of different levels of ragi flour, honey and clove on the sensory quality of chhana podo**

The sensory scores pertaining to colour and appearance, body and texture, flavour and overall acceptability of product as judged by a four panel of judges during sensory evaluation of control and functional chhana podo by incorporation of various levels of ragi flour, honey and clove in Table 3.

**Colour and Appearance**

The mean scores for colour and appearance of control sample was 8.50 as against 8.55, 7.85 and 7.22 for chhana podo incorporated with 4:40:0.3, 8:50:0.4 and 12:60:0.5 per cent ragi flour, honey and clove respectively. The highest score of 8.55 with respect to colour and appearance was recorded for

chhana podo incorporated with 4:40:0.3 per cent ragi flour, honey and clove respectively. Statistically there was significant difference ( $P=0.05$ ) between control and T<sub>2</sub>, T<sub>3</sub> sample T<sub>1</sub> sample showed no significant difference with respect to colour and appearance to control sample.

**Body and texture**

The mean sensory scores for body and texture of control sample was 8.34 as against 8.11, 7.19 and 7.10 for chhana podo incorporated 4:40:0.3, 8:50:0.4 and 12:60:0.5 per cent ragi flour, honey and clove respectively. The highest score of 8.11 in treated sample with respect to body and texture was recorded for chhana podo incorporated with 4:40:0.3 per cent ragi flour, honey, clove respectively. Statistically there was significant difference ( $P=0.05$ ) between control and experimental samples with respect to body and texture T<sub>2</sub>, T<sub>3</sub> sample but T<sub>1</sub> sample showed no significant difference with respect to body and texture to control sample.

**Flavour**

The mean sensory scores for flavour of control sample was 8.25 as against 8.12, 7.25 and 7.13 for chhana podo incorporated with 4:40:0.3, 8:50:0.4 and 12:60:0.5 per cent ragi flour, honey, clove respectively. Among the treatment sample highest score with respect to flavour of 8.12 in treated was recorded for chhana podo containing 4:40:0.3 per cent ragi flour, honey, clove respectively. The different level of ragi flour, honey and clove had significant effect on flavour of chhana podo. Statistically there was significant difference ( $P=0.05$ ) between control and T<sub>2</sub>, T<sub>3</sub> sample with respect to flavour.

**Overall Acceptability**

The sensory scores awarded for overall acceptability of chhana podo was 8.36 for control as against 8.26, 7.43 and 7.15 with 4:40:0.4, 8:50:0.5, and 12:60:0.6 per cent ragi flour, honey, clove respectively. Statistically there was non-significant difference between control and T<sub>1</sub> sample but T<sub>2</sub>, T<sub>3</sub> sample showed significant difference ( $P=0.05$ ) with respect to overall acceptability to control and T<sub>1</sub> sample Therefore, in the entire subsequent experiments chhana podo was incorporated with 4:40:0.4 per cent ragi flour, honey, clove respectively.

**Table 1:** Effect of different levels of ragi flour on overall acceptability of chhana podo

Level of ragi flour	Colour and Appearance	Body and Texture	Flavour	Overall Acceptability
Control	8.50 <sup>a</sup>	8.34 <sup>a</sup>	8.25 <sup>a</sup>	8.36 <sup>a</sup>
T <sub>1</sub>	8.20 <sup>b</sup>	8.15 <sup>a</sup>	7.13 <sup>d</sup>	8.15 <sup>a</sup>
T <sub>2</sub>	7.55 <sup>c</sup>	7.29 <sup>b</sup>	7.25 <sup>c</sup>	7.36 <sup>b</sup>
T <sub>3</sub>	7.12 <sup>d</sup>	7.10 <sup>b</sup>	8.10 <sup>b</sup>	7.11 <sup>c</sup>
CD ( $P=0.05$ )	0.13	0.29	0.01	0.24

**Note:**

- T<sub>1</sub> – 4 per cent ragi flour at rate of chhana
- T<sub>2</sub> – 8 per cent ragi flour at rate of chhana
- T<sub>3</sub> – 12 per cent ragi flour at rate of chhana
- CD – Critical difference
- All the value are average of three trails
- Different superscripts with in the column indicate significant difference ( $P=0.05$ )

**Table 2:** Effect of different levels of honey and clove on overall acceptability of chhana podo

Level of honey and clove	Colour and Appearance	Body and Texture	Flavour	Overall Acceptability
Control	8.50 <sup>a</sup>	8.34 <sup>a</sup>	8.25 <sup>a</sup>	8.36 <sup>a</sup>
T <sub>1</sub>	8.45 <sup>a</sup>	8.25 <sup>a</sup>	8.30 <sup>a</sup>	8.33 <sup>a</sup>
T <sub>2</sub>	7.35 <sup>b</sup>	7.34 <sup>b</sup>	7.25 <sup>b</sup>	7.31 <sup>b</sup>
T <sub>3</sub>	7.22 <sup>ba</sup>	7.15 <sup>ba</sup>	7.18 <sup>ba</sup>	7.18 <sup>ba</sup>
CD (P=.05)	0.44	0.34	0.46	0.41

**Note:**

- T<sub>1</sub> - 40:0.3 per cent honey and clove at the rate of chhana
- T<sub>2</sub> - 50:0.4 per cent honey and clove at the rate of chhana
- T<sub>3</sub> - 60:0.5 per cent honey and clove at the rate of chhana
- CD-Critical difference
- All the value are average of three trails
- Different superscripts with in the column indicate significant difference (P=.05)

**Table 3:** Effect of different levels of ragi flour, honey and clove on overall acceptability of chhana podo

Level of ragi flour, honey and clove	Colour and Appearance	Body and Texture	Flavour	Overall Acceptability
Control	8.50 <sup>a</sup>	8.34 <sup>a</sup>	8.25 <sup>a</sup>	8.36 <sup>a</sup>
T <sub>1</sub>	8.55 <sup>a</sup>	8.11 <sup>a</sup>	8.12 <sup>a</sup>	8.26 <sup>a</sup>
T <sub>2</sub>	7.85 <sup>b</sup>	7.19 <sup>b</sup>	7.25 <sup>b</sup>	7.43 <sup>b</sup>
T <sub>3</sub>	7.22 <sup>c</sup>	7.10 <sup>ba</sup>	7.13 <sup>ba</sup>	7.15 <sup>ba</sup>
CD (P=.05)	0.38	0.34	0.32	0.29

**Note:**

- T<sub>1</sub> - 4:40:0.3 per cent ragi, honey and clove at the rate of chhana
- T<sub>2</sub> - 8:50:0.4 per cent ragi, honey and clove at the rate of chhana
- T<sub>3</sub> - 12:60:0.5 per cent ragi, honey and clove at the rate of chhana
- CD-Critical difference
- All the value are average of three trails
- Different superscripts with in the column indicate significant difference (P=.05)

**Discussion****Effect of various levels of ragi flour on the sensory qualities of chhana podo.**

The effects of various levels of ragi flour on the sensory quality of chhana podo are presented in table 1. Colour and appearance scores of 8.50, 8.20, 7.55 and 7.12, respectively. But 8 and 12 per cent samples show significantly lower score of colour and appearance due to dark appearance respectively. Our results were well correlated with the results of Srivastava *et al.*, (2019) <sup>[9]</sup> report that Sugar free Biscuit using ragi flour at different concentration 5, 10 and 15 in which colour and appearance are 7.50, 7.20 and 6.52 in 9 point hedonic scale. Similar results were also found by Bhosale *et al.*, (2020) <sup>[3]</sup> study that minor millet (finger millet flour) kheer blended with paneer, who reported that ragi flour level increases the colour and appearances score decreases because of dull colour appear. In present study the colour and appearance score decrease as the ragi level increase this could be due to tinge of brownish colour due to ragi flour which content flavonoids and tannins.

Control sample was awarded maximum body and texture score of 8.34 compared to 4 per cent (8.15), 8 per cent (7.29) and 12 per cent (7.10), respectively are presented in table 1. Addition of ragi flour at 4 per cent was found to be optimum. It confines with work carried out by Srivastava *et al.*, (2019) <sup>[9]</sup> report that sugar free biscuit using ragi flour at different concentration 5, 10 and 15 in which it body and texture score 7.40, 7.10 and 7.9 in 9 point hedonic scale. In

present study ragi flour level increase the body and texture score decrease this might be due to loss sponginess and gummy body.

The mean score for flavour of control, T<sub>1</sub>, T<sub>2</sub> and T<sub>3</sub> treatment were 8.25, 7.13, 7.25 and 8.1, respectively are presented in table 1. Among the treatment sample it was clear from the results that 12 per cent addition secured highest flavour score, due to optimum flavour intensity. But, for 4 and 8 per cent samples scores were significant difference (P=.05) lower for flavour compared to 12 per cent. Similar results were also found by Srivastava *et al.*, (2019) <sup>[9]</sup> report that sugar free biscuit using ragi flour at different concentration 5, 10 and 15 in which it flavour score 7.10, 7.40 and 7.80 in 9 point hedonic scale. Our results were well correlated with the results of Bhosale *et al.*, (2020) <sup>[3]</sup> study that minor millet finger millet flour kheer blended with paneer who also revealed that finger millet level increases the flavour score increases. In present study ragi level increase the flavour score increase this might be due to the preference of ragi flour flavour which was felt pleasant and attractive to the judges than other treatment contains lower concentration of ragi flour.

Among the treatment sample the highest overall acceptability score (8.15) was awarded to the 4 per cent ragi flour blended sample against control (8.36). There was significant difference (P=.05) between control and 4 per cent treated samples. Sample T<sub>3</sub> awarded with significantly lower score of 7.11 when compared with other treatments. Srivastava *et al.*, (2019) <sup>[9]</sup> report that sugar free biscuit using ragi flour at different concentration 5,10 and 15 in 7.29 7.23, 7.40 in 9 Point hedonic scale. Ragi flour had a definite improve the sensory quality of chhana podo. The highest score (8.15) was observed in treatment (T<sub>1</sub>) 4 per cent ragi flour level was found to be superior, at this level the compact body and better smooth texture was obtained.

**Effect of different levels of honey and clove on the sensory attributes of chhana podo.**

The colour and appearance scores of control, 40, 50 and 60; 0.3, 0.4 and 0.5 per cent honey and clove were 8.50, 8.45, 7.35 and 7.22 respectively are present in table 2. The lowest scores for colour and appearance was obtained at T<sub>3</sub> which has dark shed, dull appearance. In the functional chhana podo sample T<sub>1</sub> obtained the maximum score which give acceptable slight brown colour. The result of this experiment supports the findings of Deshmukh, (2008) <sup>[4]</sup> while preparation of burfi using honey as a sweetening agent. The sensory evaluation for colour and appearance score with increasing level of honey the score declines due to more intense brown colour imparted by honey. In present study honey and clove level increase the colour and appearance score decrease this indicates higher level of honey and clove imparts stronger colour and appearance which decrease its acceptability.

The highest body and texture score 8.34 was obtained by control sample compared to other treated samples. But, in the treated samples highest score was awarded to 40 per cent honey and 0.3 per cent clove (8.25) per cent. The result of this experiment supports the findings of Deshmukh, (2008) <sup>[4]</sup> while preparation of burfi using honey as a sweetening agent. The sensory evaluation for body and texture score it ranges from 9.0 - 6.7 with decreasing trend as increasing the honey level. In present study honey and clove level increase the body and texture decrease this might be due to the increase in the level of honey shows loose body, sticky texture.

The flavour scores of 8.25, 8.30, 7.25 and 7.18 were awarded to control, 40 honey: 0.3 clove, 50 honey: 0.4 clove and 60 honey: 0.5 clove per cent in samples, respectively. It was clear from the results that 40 honey and 0.3 clove per cent addition secured highest flavour score, due to optimum flavour intensity. The result of this experiment supports the findings of Deshmukh, (2008) [4] while preparation of burfi using honey as a sweetening agent. The sensory evaluation for flavour score for honey burfi were found as 8.2, 7.6, 7.8 and 6.6 for treatments T0, T1, T2 and T3, respectively which showed decreasing trend as the level of honey increases. Similar trend was also observed in the present study that increases in level honey and clove reduction in flavour score and clove level increases the flavour score decreases this might be due to sharp flavour of clove.

Among the treatment sample the highest overall acceptability score (8.33) was awarded to the 40 honey and 0.4 clove per cent chhana podo sample. Considering all the quality parameters, the highest score was given to chhana podo with 40 honeys: 0.3 cloves per cent had good blend of natural flavour of honey sweetness of sugar and richness of milk soild and flavour of clove. It had superior body, smooth texture. The result of this experiment supports the findings of Deshmukh, (2008) [4] while preparation of burfi using honey as a sweetening agent the level of honey increased the overall acceptability score for flavour, body and texture and colour and appearance decreases. Incorporation of honey and clove (40:0.3) highly improved the sensory evaluation scores of the chhana podo.

#### Effect of different levels of ragi flour and honey and clove on the sensory qualities of chhana podo.

The ragi flour, honey and clove was added to chhana podo at three different levels viz., 4:40:0.3, 8:50:0.4 and 12:60:0.5 per cent level. The experimental samples were subjected to sensory analysis by a panel of judges using 9-point hedonic scale. The sensory scores regarding the effect of incorporation of ragi flour, honey and clove for colour and appearance, body and texture, flavour and overall acceptability are presented in table 3. Addition of at the rate of 4:40:0.3 per cent was found to be optimum in chhana podo. The sensory evaluation score in terms of overall acceptability was found to be highest of 8.26 for 4:40:0.3 per cent Ragi flour (finger millet), honey and clove treated sample against 8.36 for control sample.

In case of colour and appearance the highest score (8.55) was obtained among treatments by 4:40:0.3 per cent in ragi flour, honey and clove against control with a score of 8.50 when compared with the other treated samples. This could be due to higher the level of honey, clove and ragi decrease the score of colour and appearance due to dull and slight brown colour.

Similarly, in case of body and texture highest score was obtained by 4:40:0.3 per cent in ragi flour, honey and clove treated sample of 8.11 followed by other treated samples. This might be due to higher the level of honey, clove and ragi decrease the score of body and texture due to gummy body and sticky texture.

In case of flavour the highest score was obtained by 4:40:0.3 per cent ragi flour, honey and clove treated sample with a score of 8.25 against control with a score of 8.12 when compared with the other treated samples. Further increase in levels of addition, resulted in the decreased sensory scores for all the attributes. This could be due to the higher level of sweetness in honey and intense flavour of clove which might

have masked the flavour of the Chhana podo. This is probably due sharp flavour clove.

The overall acceptability the highest score was obtained by 4:40:0.3 per cent ragi flour, honey and clove treated sample with a score of 8.26 against control with a score of 8.36 when compared with the other treated samples.



Fig 1: Control chhana podo



Fig 2: Functional chhana podo

#### Conclusion

In view of the experimental results obtained during the present investigation, it may be concluded that the chhana podo prepared by ragi flour, honey and clove can be successfully prepared. Chhana podo prepared by ragi flour, honey and clove in treatment T1 was best in terms of organoleptic characteristics and received highest score in organoleptic evaluation (colour & appearance, body & texture, Flavour & taste, overall acceptability).

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