

## Sensory quality of fruit flavoured yoghurt by using litchi fruit (*Litchie chiensis* L.)

RITESH BALASO WATHARKAR AND N.G. DEVSHETE

Sensory quality of fruit flavoured yoghurt by using Litchi fruit was evaluated. Raw buffalo milk was standardized to 6 per cent fat. Fruit juice of fully ripened litchi fruit were used for preparation of yoghurt. Yoghurt was prepared from buffalo milk with incorporation of Litchi fruit at different level were 0 per cent Litchi fruit juice ( $T_0$ ), 2 per cent Litchi fruit juice ( $T_1$ ), 4 per cent Litchi fruit Juice ( $T_2$ ) and 6 per cent Litchi fruit Juice ( $T_3$ ). Good quality fruit flavoured yoghurt can be prepared by fortifying it with upto 4 per cent litchi juice ( $T_2$ ). It is seen that yoghurt prepared by fortification with 4 per cent litchi juice ( $T_2$ ) scored the highest points (8.15) followed by yoghurt prepared by fortification with 6 per cent litchi juice ( $T_3$ ) (7.73).

**Keywords:** Yoghurt, Litchi fruit juice, buffalo milk, Fat, Acidity, Total solid

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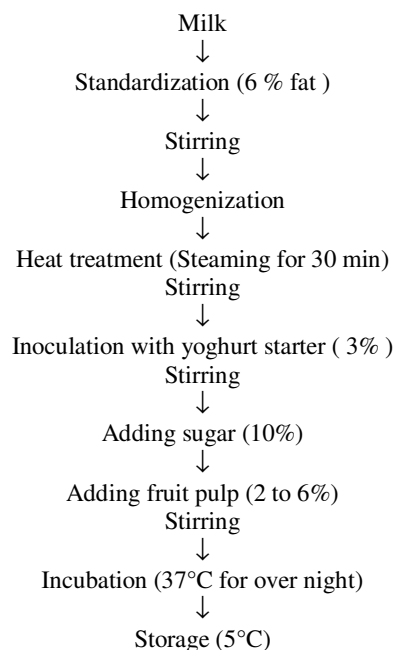
Yoghurt is produced by adding a 'starter' of active yoghurt containing a mixed culture of *Lactobacillus bulgaricus* L. and *Streptococcus thermophilus*. Yoghurt is valued for controlling the growth of harmful bacteria and in curing intestinal diseases like constipation, diarrhea, dysentery. Baked good will rise when yoghurt is used.

Recently, there has been an increasing trend to fortify the product with fruit juice/ pulp. Fruits are considered good source of minerals and vitamins and hence supplementation of yoghurt with fruit will not only improve its flavour but also its overall nutritional quality. Traditionally fruits like strawberry, raspberry, apricot and blackcurrant are used.

Litchi is one of the most delicious, refreshing and perishable subtropical food of India. Its juice is cooling, nutritive and good source of minerals.

Standard buffalo milk with 6 per cent fat required for the study was obtained from local market of sawarda. Plain yoghurt with low fat and high protein was purchased from the Parsi Dairy (Mumbai). Fully ripened litchi fruits were used for preparation. For preparation of fruit flavoured yoghurt, litchi

fruit used in different levels viz.,  $T_0$ : Control,  $T_1$ : 2 per cent litchi fruit juice,  $T_2$ : 4 per cent litchi fruit juice,  $T_3$ : 6 per cent litchi fruit juice.



Fruit/sweetened yoghurt was prepared as per the procedure described by Singh (1979).

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**Table 1.** Sensory evaluation of fruit flavoured yoghurt (per cent)

Treatments	General appearance	Body and texture	Taste	Overall acceptability
T <sub>0</sub>	7.73	7.6	7.52	7.61
T <sub>1</sub>	7.4	7.42	7.51	7.41
T <sub>2</sub>	8.2	8.13	8.12	8.15
T <sub>3</sub>	7.75	7.77	7.7	7.73

The experiment was replicated three times and total 18 samples of fruit flavoured yoghurt were served to a panel of expert to judge the product on 9 point hedonic scale for sensory evolution for general appearance, body and, texture, taste and overall acceptability.

Mean score for general appearance ranged from 7.4 to 8.2 (Table 1). Highest score for treatment T<sub>2</sub> was found 8.2 which was superior over remaining all treatments *i.e.* T<sub>0</sub>, T<sub>1</sub> and T<sub>3</sub>. A good quality plain yoghurt has a jelly like coagulum and with porcelain like surface without wheying off.

Mean score body and texture ranged from 7.42 to 8.13 (Table 1), highest score for treatment T<sub>2</sub> was found 8.13 which was superior over remaining all treatments. A good quality plain yoghurt is viscous, nonpasty with custard like heavy consistency. Adequate firmness without syneresis is essential for a top quality product (Ranganathan and Gupta, 1987).

Mean score for taste ranged from 7.51 to 8.12 (Table 1). Highest score for treatment T<sub>2</sub> was found 8.12 which was superior over remaining all treatments that is T<sub>0</sub>, T<sub>1</sub> and T<sub>3</sub>. There was slightly decrease in taste score (7.7) by addition 6 per cent litchi juice (T<sub>3</sub>).

Mean score overall acceptability ranged from 7.41 to 8.15. Highest score for treatment T<sub>2</sub> was found 8.15 which was superior over remaining all treatments *i.e.* T<sub>0</sub>, T<sub>1</sub> and T<sub>3</sub>. Chede (1993) recorded the score of 8.06 per cent for some formulated

Soy-Shrikhand.

### Conclusion :

It may be concluded that a good quality fruit flavoured yoghurt can be prepared by fortifying it with upto 4 per cent litchi juice (T<sub>2</sub>). It is seen that yoghurt prepared by fortification with 4 per cent litchi juice (T<sub>2</sub>) scored the highest points (8.15) followed by yoghurt prepared by fortification with 6 per cent litchi juice (T<sub>3</sub>) (7.73).

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