Fortification of low-fat frozen carrot yoghurt

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Fermentation of milk sugar produce lactic acid, which acts on milk protein to give yoghurt its texture and its characteristics taste. Yoghurt is a fermented milk product which is produced by adding a mixed culture of Lactobacillus bulgaricus and Streptococcous thermophilus. The present study was carried out with different levels (2%, 3%, 4% and 5%) of carrot pulp. Frozen yoghurt mix was standardisation to 12 per cent sugar, 12 per cent SNF, @ 2 per cent culture, fat (0.5%, 1.5% and 3.0%) and stabilizer (0.5%) adjusted to 26 per cent total solids for frozen yoghurt. The low fat frozen yoghurt samples of different treatments were analyzed for nutritional characteristics (fat, protein, calcium and total carotene). The data obtained on various parameters were statistically analyzed. Based on the results, it was concluded that the low fat frozen flavoured yoghurt with 3 per cent carrot pulp and 3.0 per cent fat (T_F) were high as comparable with other treatments in the nutritional characteristics (fat, protein, calcium and total carotene). The energy wise low-fat frozen yoghurt treatment combinations were more acceptable as compared to high-fat frozen yoghurt. The cost of low fat frozen yoghurt incorporated with carrot pulp was 61.42 Rs./lt. Its cost is low and this may be available in the market for the consumers at reasonable prices.

Key Words: Yoghurt, Frozen yoghurt, Sensory quality, Carrot pulp, Nutritional quality