ABSTRACT

A recent trend established in the dairy industry involves combining dairy ingredients with other food components, which has provided an excellent way to utilize the nutritionally valuable components and to exploit from the synergy between the characteristics of the cereal and dairy sources. The nutritional and therapeutic attributes of fermented milk have the potential to reduce the role of medicine for maintaining normalcy in human health, thus leading to a tremendous growth of global market to yoghurt and similar fermented milk products. The present study was undertaken with the objectives to develop suitable technology for preparation of low fat dietetic fermented dairy drink, to ascertain the level of fat in milk suitable for the production of low fat dietetic fermented dairy drink. To study the effect of different levels of cereals on the quality of dietetic fermented dairy drink, to evaluate the organoleptic quality, chemical quality, microbiological quality, energy value of dietetic fermented dairy drink and cost of the product. Three different percentage of milk fat 0.5%, 1.5%, and 3% indicated as F₁, F₂ and F₃ respectively and four different level of cornflakes powder 4%, 6%, 8% and 10% indicated as C₁, C₂, C₃, and C₄ respectively were compared to each other. Sensory evaluation of the prepared dairy drink was carried out by using the nine point hedonic scale. Product was tested for moisture, fat, protein, carbohydrate, ash, total solids and acidity, energy value and cost of the product was also worked out for different treatment combinations. The data obtained during investigation were statistically analyzed by using factorial design and critical difference between combinations.

Amongst the different treatment combinations of dietetic fermented dairy drink, F₃C₃ having 3 percent milk fat and using 8 per cent level of cornflakes powder was found to be superior in term of flavour and taste, as well as overall acceptability over the other treatment combinations. Among the different treatment F₁C₁ having 0.5 percent milk fat and 4 percent level of cornflakes dairy drink contained the highest percentage of moisture (91.80). The treatment combination F₃C₁ having 3 percent milk fat and 4 percent of corn flakes powder contained the highest percentage of fat (1.51). The treatment combination F₂C₄ using 1.5 percent milk fat and 10 per cent level of cornflakes powder contained the highest percentage of protein (2.51) and carbohydrate (10). Amongst the treatment
combinations $F_3C_4$ having 3 per cent milk fat and 10 per cent level of cornflakes contained the highest percentage of total solids (14.29). The cost wise, dietetic fermented dairy drink prepared was also more economical as compared to the dairy drink available in present day market. The microbial quality for different treatment combinations was found to be satisfactory.

**Keywords**: cornflakes powder, milk fat.