The Asian Journal of Animal Science (Dec., 2008 to May, 2009), Vol. 3 No. 2 : (124-129)

RESEARCH PAPER

Effect of some technological aspects on sensory quality of sweetened flavoured yoghurt

G. YADAV AND M.P.S. YADAV

Accepted : October, 2008

See end of the article for authors' affiliations

Correspondence to :

G. YADAV
Department of Animal Husbandry and Dairying, C. S. Azad University of Agriculture and Technology, KANPUR (U.P.) INDIA

ABSTRACT

Sweetened Yoghurt was prepared by Bhadawari buffalo milk inoculated with various levels of startere culture treated with different levels of sugar, flavouring, agents, stabilizer, preservative and storage periods used for the preparation. The observations were made with regard to sensory evaluation *viz.*, flavour, body and texture, colour and appearance, sweetness and overall acceptability. The data were analyzed by using factorial completely randomized design and it was found that 3 per cent inoculum, 10 per cent sugar, addition of vanilla flavour, sodium alginate stabilizer, sodium benzoate preservative at zero day storage graded as excellent quality and suitable for better quality of sweetened Yoghurt.

Key words : Yoghurt, Vanilla, Flavour body and texture, Sweetness, Sensory quality.

Fermented milk is known throughout the world for its taste, nutritive and therapeutic values. The varieties of fermented milk product differ according to local traditional practices and known under various names such as acidophilus milk, Bulgarian milk, Cultured butter milk, Dahi, Leben, Kefir, Kumiss and yoghurt etc. (Laxminarayan and Shankar, 1980). In the recent years the production and use of fermented milk and acidophilus culture preparation for treatment of intestinal disorder has gained great popularity in America, Europe, Japan and other countries, as the production of these products has been highly mechanised and wide variety of fel1nented milk products are manufactured and marketed. Fruits and various flavouring materials are also incorporated into the products to enhance their palatibility. As a corollary to these developments, the importance of fermented milk in human nutrition and health has been the subject of numerous investigation by microbiologists, medical scientists and public health organizations. As a result of these studies, sufficient experimental evidences are now available to establish the nutritive and therapeutic values of fermented milk products as well. Traditionally, yoghurt has been produced from milk that had been boiled for a considerable time to evaporate the water and thus concentrate the solids. The consistency and flavour depend entirely on the activity of microflora. However, the introduction of the products to a wider market has involved process changes through the use of stabilizing agents to modify consistency and allow the introduction of bulk incubation, sweetening agent to tune down acidity, fruit and flavour to bring wider consumer appeal to the product.

MATERIALS AND METHODS

Bhadawari Buffalo milk was obtained from the University dairy farm. The milk was standardized at 10 per cent milk fat and 8 per cent solid not fat by using pearson square methods. Yoghurt is prepared from good quality buffalo milk. The milk should be of normal and free from foreign material including those imparting undesirable flavour inoculated with starter culture (A) *viz.*, 2% (A_1, 3% (A_2 and 4% (A_3 *(Streptococcus thermophilus + Lactobacillus bulgaricus),* three sugar levels (8% B_1 10% B_2 12% B_3, three flavouring agents (Cocoa C_1 Vanilla C_2, Pineapple C_1) two stabilizers (Sodium alginate D_1 Potato starch D_2), two preservatives (Sorbic acid E_1, Sodium benzoate E_2) and three storage periods (0 F_1, 3 F_2, 6 F_3 days) and used for the preparation of yoghurt. The effect of various factors on yoghurt were analyzed for sensory evaluation (flavour, body and texture, colour and appearance, sweetness and overall acceptability).

Flow chart of manufacturer of yoghurt

Receiving of buffalo milk
↓
Standardization (fat 10%, S.N.F. 8%)
↓
Filtration (35-40^{0}C)
↓
Addition of cane sugar
↓
Addition of stabilizer
↓
Pasteurization (85^{0}C for 20 Min.)
↓
Cooling (43^{0}C)
↓
Addition of flavour
↓
Addition of preservations