

ABSTRACT

Two brands of plain natural yoghurt were stored at 4°C for 28 days (2 weeks before and after their expiry dates), in an attempt to evaluate their keeping quality microbiologically and organoleptically. The specific objectives were to determine the quantitative changes in pH, titratable acidity as percent lactic acid, microbial populations and organoleptic quality attributes (appearance, colour, body, texture and flavour) on storage.

On storage the pH of the homogenate for both brands of yoghurt dropped, this was accompanied by an increase in the percentage of lactic acid. These changes were significant between brands and for storage treatment.

The mean log counts of lactobacilli and streptococci did not vary significantly on storage and between brands unlike the yeasts and moulds. For yoghurt brand A, the lactobacilli were the dominant starter culture organisms while for yoghurt brand B, the streptococci became increasingly dominant as storage progressed. The presumptive Most Probable Number technique revealed the presence of coliforms for yoghurt brand A.

Lactobacillus bulgaricus and Streptococcus thermophilus were the starter culture organisms identified, while the contaminants were Staphylococcus aureus, Streptococcus faecalis, Candida, Saccharomyces, Penicillium, Aspergillus and Geotrichum.

As storage progressed, the three trained panelists downgraded the quality attributes significantly. Brands were different for all the quality attributes with the exception of body and texture. Yoghurt brand B was rated higher in organoleptic quality.

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