

Characterisation of set-yogurts made from dehydrated yoghurt bases containing *L. acidophilus* NCFM

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The probiotic *L. acidophilus* NCFM has been widely studied as it promotes health benefits in humans when administered in adequate amounts ($>10^6$ cfu mL⁻¹). The popularity of preparing probiotic yogurt from dehydrated yogurt bases (DYBs) in the homes is increasing due to its convenience and global food safety scares. It is therefore important to determine technologies that maximize the stability of probiotics during formulation, preparation and storage. Very little is known about the levels of starter bacteria and probiotics in set-yogurts prepared from DYBs packaged under modified atmosphere. Therefore, the aim of this study was to characterise set-yoghurts prepared from DYBs which had been stored for 9 weeks at ambient temperature. Three set-yogurt formulations were prepared from DYB packaged in modified atmosphere. Acidity increased further during storage with pH decreasing from 4.5 to 4.2. Changes in firmness, viscosity, and syneresis index during storage varied between formulations. Despite the significant increase in acidity ($p < 0.05$), the NCFM cell counts were $>10^8$ cfu mL⁻¹ and the products were stable throughout storage. The results from this study suggest that levels of yogurt bacteria and *L. acidophilus* NCFM in set-yogurts made from DYBs packaged in modified atmosphere were satisfactory.

Biography

Mutukumira holds a PhD (Food Science and Technology) from the Norwegian University of Life Sciences, Norway after working on the technology of fermented milks. His research interests are on probiotics, natural antimicrobial compounds and use of emerging food preservation techniques.

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