DEVELOPMENT OF PROBIOTIC DRINKING YOGHURT FROM GOAT MILK.

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ABSTRACT

Drinking yoghurts are fermented dairy beverages consumed worldwide and can be supplemented with substances that provide extra health benefits such as probiotic strains. In this context, the present study aimed to prepare a drinking yoghurt using goat's milk with the commercially available *Lactobacillus acidophilus* probiotic strain and identify the viability of probiotic cells at 12 days of storage. Three formulations of drinking yoghurt were developed by changing the level and type of stabilizers, namely gelatin (1.5 g, 2g and 2.5 g) and modified starch (3.5 g, 3g, 2.5 g). The preparations were evaluated for viscosity, syneresis, sensory attributes, and survivability of probiotics during storage at 4°C for 12 days and microbiological analysis for yeast and mold, and *E coli* were analyzed. The viscosity was increased ($P<0.05$), syneresis was reduced ($P<0.05$) and titratable acidity was increased ($P<0.05$) due to increased level of the microbial count with the storage time. The probiotic population in drinking yoghurt remained 6 log cfu/g after 12 days of the storage. Proximate analysis included the analysis of fat, ash, protein content of raw, and fermented goat milk sample and did not differ ($P > 0.05$) with different stabilizer levels. Yoghurt made with 2.5 g of gelatin and 2.5 g of modified starch received the highest overall acceptability. The Result from the present study suggests that probiotic added goat's milk drinking yoghurt which formulated with 2.5 g of gelatin and 2.5 g of modified starch levels may be best with good textural properties includes, less syneresis, high viscosity and better stability and best sensory properties at 12 days of storage.