Quality parameters and shelf life of yellow mombin-flavored low-fat yogurts containing probiotics and synbiotics

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The yogurt is a dairy product elaborate by symbiotic cultures of lactic acid bacteria. It is known that the frequent consumption of yoghurt is beneficial to health. Therefore, the aim of this research was to evaluate the quality characteristics and shelf life of yellow mombin-flavored low-fat yogurts containing probiotics and synbiotics. Two types of yogurt were prepared, one symbiotic (D1) and one probiotic (D2), both with skim milk. The yogurts were prepared using mixed culture (Docina®), mixed probiotic culture (Bio-Rich®), fructooligosaccharide (FOS) (SKL Pharma®) and yellow mombin puree. The formulations were kept under refrigeration (4±1ºC) and analyzed at 1st, 7th, 14th, 21th and 28th day of storage. The presence of microorganisms quality indicator, lactic acid bacteria quantification (total and specific), pH and acidity were done according to the methodology proposed by AOAC. During the storage the pH of formulations D1 and D2 ranged from 3.8 to 4.1 and 3.8 to 4.2, respectively. With regard to the acidity the formulation D1 ranged from 0.63 to 1.02%, and D2 ranged from 0.65 to 1.00%, which is suitable for this type of food. The total lactic acid bacteria and Lactobacillus sp., Streptococcus thermophilus and Bifidobacterium Bb 12 count showed satisfactory results since it was above 10⁷ CFU mL⁻¹ during all storage period. The addition of FOS did not influence on the viability of the probiotic during storage. Therefore, the yogurts showed satisfactory stability within the standards established for this type of product.