Physical and chemical characteristics of yellow mombin-flavored low-fat yogurts containing probiotics and synbiotics

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Functional foods can come in many forms, some of which are conventional foods, such as yogurt, with bioactive components inherent to the food. Given the commercial success and growth of yogurt as a healthy choice among consumers, it is considered a good vehicle for probiotics and symbiotics. The aim of this research was to evaluate the physical and chemical characteristics 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 centesimal composition, total caloric value (TCV), total sugars, calcium and phosphorus were done according to the methodology proposed by AOAC. The results showed significant variations of moisture (D1: 81.67% and D2: 82.40%), ash (D1: 0.70% and D2: 0.67%) and protein (D1: 2.19% and D2: 1.61%). There were not lipids in both formulations. The values of carbohydrates (D1: 15.45% and D2: 15.16%), dietary fiber (D1: 3.70% and D2: 3.93%) and total sugars (D1: 11.39% and D2: 11.50%) were not significantly different between formulations. The TCV of probiotic formulation (67.72 Kcal 100g⁻¹) was significantly lower than the value found to symbiotic formulation (70.55 Kcal 100g⁻¹). With regard to the calcium and phosphorus, the results showed significant variation between formulations, but the contents were considered sources of these minerals. Therefore, the yogurts showed satisfactory results with potential use for food industries.