sensorial acceptance and probiotic viability of a dairy based smoothie containing guava pulp


Probiotic fermented milks are the most consumed functional dairy product in the world. The sensorial acceptance and the probiotics viability in a dairy based smoothie were evaluated. This beverage was obtained by mixing probiotic fermented milk with inulin and pasteurized guava pulp. To skimmed milk was added sucrose (8%) and inulin (3.4%). Then it was heated to 85°C/25min, cooled to 42-45°C and inoculated with yogurt starter-culture and a probiotic starter (Bif. longum, B. infantis, B. breve) until pH 4.7. The fermented milk was cooled and mixed to guava pulp (50/50%), 6% of sucrose and potassium sorbate (0.03%). The viability of probiotic in the dairy based smoothie was evaluated during 30 days of refrigerated storage (4°C). The viability of the bifidobacteria (7.18-7.54 log CFU.mL⁻¹) is according to the limit proposed by Brazilian legislation to allegations of foods with functional properties. The fiber employed did not affect the viability of probiotics in the beverage for 30 days and in accordance with the legislation requirement for functional foods claims. Fifty consumers evaluated the beverage after 13 days of production, for overall acceptability, appearance, color, flavor and consistency (9-point hedonic scale) and for the intensities of the guava flavor, acidity, sweetness and consistency (7-point JAR scales). The means for overall acceptance and consistency of the product were close to "like"; between "like" and "like very much" to appearance and color; and between "like slightly" and "like" for flavor. The intensities of guava flavor, consistency and sweetness were considered ideal, however, the product was considered more acidic than the ideal.