

TITLE: Fermented milk by *Lactobacillus reuteri* LR92 with addition of juçara pulp.

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ABSTRACT:

Fermented milk is considered a functional food when it contains probiotic bacteria and the addition of fruit in its composition is an alternative for the industry to seek new tastes that please the consumer. Juçara is the fruit of the palm tree *Euterpe edulis Mart.*, and has been standing out as a promising source of natural antioxidants. The objective of this study was to produce fermented milk by *Lactobacillus reuteri* LR92 with addition of juçara pulp and to determine after 12 hours of fermentation its cell viability by MRS medium, pH by digital potentiometer and acidity by means of titration with NaOH 0.1 M, as well as to analyze its proximal composition through quantification of the protein, lipid, ash and moisture contents by the AOAC methods and the carbohydrates obtained by the difference. In the determination of antioxidant activity, the method used was the ability to sequester DPPH (2,2-diphenyl-1-picrylhydrazyl) radicals whose results are expressed as $\mu\text{mol Trolox} / \text{g dry sample}$. For the production of the fermented milk, reconstituted skimmed milk powder (RSM) at 18% total solids was pasteurized and cooled, 100 mM food grade glycerol was added and 10 mL / L of the active *L. reuteri* culture was inoculated. The milk was incubated under anaerobic conditions for 12 hours at 37 ° C, then 5% juçara pulp (JFM) and 10% sucrose were added. After the milk fermentation period, the pH of 4.7 was reached and viability for *L. reuteri* was 7 log CFU / mL. The value found for the titratable acidity was 0.99% (g lactic acid). The values found in the analyzes of proximal composition are in accordance with the literature, for moisture: 82.61% lipids: 0.33%, protein: 3.47%, ashes: 0.42% and carbohydrates: 13.17%. The antioxidant capacity of JFM was $83.92 \pm 4.00 \mu\text{mol Trolox} / \text{g}$ 3.8 times more than in fermented milk without juçara extract (data not shown). In this way the developed product presented parameters compatible with the legislation, with good cellular viability, using a little known fruit responsible for an increase in the contents of antioxidants.

KEYWORDS: pH, Probiotic, Proximal composition, Viability

DEVELOPMENT AGENCY: CNPq e Universidade Estadual de Londrina