TITLE: VIABILITY OF PROBIOTIC CULTURE IN MINAS FRESCAL CHEESE.

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ABSTRACT:

Consumers have been looking for a healthier lifestyle. Start with your eating habits by eating healthier foods like functional foods containing probiotics. Probiotics are also constituted by lactic acid bacteria, since these microorganisms are found in the human intestinal microbiota. There are several works that demonstrate its effectiveness and tolerance to the biological barriers of the individual. Among the species of interests most used by the industries in the development of products containing such probiotics, are basically the species of the genus Lactobacillus. The objective was to develop Minas Frescal cheese with Lactobacillus acidophilus LA-5 strain. This was added directly to the milk used to make the cheeses. The populations were monitored at times 1, 14 and 28 days of storage, in duplicate. Portions of 25 g of each sample were serially diluted in 225 mL of 0.1% (w / v) buffered peptone water at each time point and enumerated by depth inoculation, after serial dilutions of this, on MRS agar and incubated at 37°C for 48 h under anaerobic conditions. The data were submitted to the Shapiro-Wilk and Bartlett tests, to verify the normality and homogeneity assumptions, respectively, followed by the Tukey test at 5% significance by the Sisvar program. Populations remained above 9 log UFC.g⁻¹ over the proposed storage period. Internationally, it is based on the assumption that the food should contain a minimum amount of viable cells, between 10^{6} -10⁸ UFC.g⁻¹ or 10⁸ - 10¹⁰ UFC / day in a 100 g portion. According to statistical data, there was no significant difference between the times (p>0.05). Minas Frescal cheeses were considered adequate food for incorporation and maintenance of the Lactobacillus acidophilus LA-5 strain, in accordance with the standards for probiotic products.

Keywords: dairy, lactic bacteria, lactobacillus.