TITLE: MICROBIOLOGICAL QUALITY OF HOMEMADE FROZEN MILK KEFIR SAMPLES

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Kefir is a probiotic fermented beverage produced from grains composed by a polysaccharide matrix containing yeast and bacteria. Its composition varies alongside origin, growth and storage. One of the most used ways to conserve and donate the samples is freezing. This paper aimed to evaluate microbial feasibility after reactivating kefir samples donated by North of Parana's families. A total of 20 homemade samples were obtained from a social media kefir donation group. The samples were gathered and freezed for three months. Following, the samples were unfreezed in refrigerator, covered by UHT whole milk and kept at room temperature, being filtered and replaced at a new milk each 48 hours, during 30 days. Samples were them analyzed for lactic total number bacteria, psychrotrophic and molds and yeasts and counting of total and thermotolerant coliforms at the Centro Mesorregional de Excelência e Tecnologia do Leite (CMETL), according to Silva et al., 2010 and Instrução Normativa Nº 62, 2003, August, 26. All the samples presented intact and with a white coloration. Seven samples showed grains growth and colonies that joined due to a viscous substance, it assumes that it is due to its polysaccharide matrix. These samples presented lactic bacterial count higher than allowed by legislation, standard value for molds and yeasts and higher count of total and thermotolerant coliforms. It presumes that high coliforms count is due to handling contamination, storage or grain refrigeration. The other thirteen samples showed few stickiness and separated grains, no colonial growth to lactic total number bacteria, psychrotrophic and counting of total and thermotolerant coliforms, being inside molds and yeasts standard. The consume inviability can be assigned to improper preparation and freezing or due to time and freezing temperature of the molts. It can be concluded that none of the analyzed samples were fit for consume according to fermented milk legislation and the inappropriate ways of preparation and freezing the molts could be the cause to the non-lactic total number bacteria, psychrotrophic and counting of total and thermotolerant coliforms bacterial growth.

Keywords: probiotic, bactéria, mold, yeast, lactic bacterial count.

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