

MICROBIOLOGICAL QUALITY OF BRAZIL NUTS MILK SUBMITTED TO DIFFERENT DEHULLING METHODS

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ABSTRACT:

Bertholletia excelsa Bonpl populaly known as Brazil nut, is considered one of the noblest species of the Amazon rainforest, being found throughout this territory. Its fruit represents a high economic value due to its use in both human and animal feeding, presenting about 60 to 70% of lipids, polyunsaturated fatty acids and 15 to 20% of protein. There are many uses of Brazil nuts, and the "milk" extracted from the nuts, is usually consumed pure and used by the natives as typical food. Due to the high content of unsaturated fatty acids in its composition, the nuts becomes very perishable, due oxidative processes, reduction of nutritional value, appearance of smell and rancid flavor, leading to a product with low quality, besides the susceptibility to colonization by pathogenic microorganisms due poorly handled. The process for obtaining Brazil nuts milk involves the stages of degumming of the nuts, extraction, separation of the insoluble residue, formulation and packaging. The most common form of degumming is manual. The objective of the work was to evaluate the microbiological quality of Brazil nuts and its milk obtained through the processes of manual or NaOH dehulling. The count of aerobic bacteria in the standard agar for counting (PCA), total coliforms and *E. coli*, presence of *Salmonella* sp., and counting of molds and yeasts using Potato Dextrose Agar (PDA) were counted. The microbiological evaluation of nuts showed no bacterial and fungal growth in any of the performed tests. On the other hand, the samples ofrazil nuts milk with manual and NaOH dehulling had total counts of mesophiles of 1×10^2 and 5.9×10^2 UFC/mL, respectively, besides the presence of coliforms at 35 ° C, and absence of coliforms at 45°C, as well as *Salmonella* sp. The fungal growth of both Brazil nuts milk samples showed growth of yeast colonies in PDA. The legislation does not stipulate microbiological parameters for Brazil Nuts milk, however, the results point to the satisfactory quality of the products, in relation to the absence of some pathogens such as *E. coli* and *Salmonella* sp.

Keywords: Brazil Nuts, food quality, Microbiological evaluation