TITLE: THE INFLUENCE OF HEAT TREATMENT ON THE MICROBIOLOGICAL QUALITY OF THE INDUSTRIALIZED COCONUT WATER SOLD IN LIMOEIRO DO NORTE-CE.

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Coconut water is a potentially commercial beverage due to its considerable nutritional value for the human organism, besides having low caloric value. Inside the fruit, the water is sterile, however, during its obtainment, there is the possibility of microbiological contamination as a result of inadequate processing, bringing risks to consumersô health. The aim of this study was to evaluate the influence of heat treatment on the microbiological quality of the industrialized coconut water sold in Limoeiro do Norte-CE. The parameters evaluated were thermotolerant coliforms count; detection of *Escherichia coli;* research of *Salmonella* sp.; yeasts and molds count; *Staphylococcus* sp. and mesophilic aerobic count. Three distinct brands were evaluated, with two lots of each brand, identified as A1 and A2 in accordance with its package and its thermal treatment (PET bottle ï without heat treatment); B1 and B2 (Polypropylene - PP plastic cup - Pasteurization) and C1 and C2 (aseptic filling in Tetra-Pak ï *Ultra High Temperature*-UHT), totalizing six samples tested in duplicate. As for thermotolerant coliforms, only the sample A2 presented values Ó 2400 MPN/g, which are above the ones recommended by the Brazilian legislation (10^2 MPN/g); there was also *E. coli* detection. It was not observed *Salmonella* sp. in none of the samples. Only brand C did not favor the development of molds and yeasts. It was observed the growth of *Staphylococcus* sp. in all samples, with greater emphasis on A1 and A2, measuring 1,14 x 10^5 and 1,1 x 10^6 CFU/g, respectively. In the aerobic mesophilic count, only the samples C1 and C2, whose heat treatment applied was UHT, did not show signs of contamination. Although the Brazilian legislation only set standards for thermotolerant coliforms and *Salmonella*, the remaining parameters were evaluated with the purpose of investigating the microbial load present in the samples, allowing the understanding of the conditions that the food has undergone. It can be observed that although none of the samples were completely free of contamination; only the sample A2, which was not heat-treated, was qualified as unfit for human consumption, because of the presence of thermotolerant coliforms, as well as *E. coli* in its content, which informs us that, in one of the processing steps, the final product came into contact with fecal source material. The application of the appropriate heat treatment has direct effect on the microbiological quality of the product.

Keywords: Sterile, Pasteurization, Ultra High Temperature, Contamination, Hygienic-sanitary conditions.