
Microbiological Stability of A Pasteurized Prebiotic Beverage Composed by Cashew-Apple and Yacon During Refrigerate Storage

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Resumo

New consumption trends have lead to a consumer's approach to healthier and more convenient foods and beverages. Food products claiming a functional properties towards promoting health are eagerly accepted by consumers and likely to result in a decrease in mortality and improving the quality of life of the population. An example is the cashew-apple, a fruit rich in antioxidant compounds, such as ascorbic acid, carotenoids and polyphenols, extensively reported in the prevention of diverse types of cancer. In this way, new functional beverages based on fruit juices and others foods, as the yacon - a tuberous root that has a high content of fructooligosaccharides with prebiotic properties - are becoming popular due to their health promoting attributes. Considering that the thermal processing should ensure microbiological stability of the products, the objective of this work was to evaluate the effect of heat treatment on the inactivation of spoilage and pathogenic microorganisms during the storage of a prebiotic beverage, composed by cashew-apple and yacon. The beverage was formulated, pasteurized (90°C for 60 s.) and then stored under refrigeration at 4 °C (± 1.5 °C). The analysis of filamentous fungi and yeasts, fecal coliforms, *E. coli*, and *Salmonella* spp. were performed

Referência:

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according to the methodology described in the Manual of Bacteriological Analysis (FDA Bacteriological Analytical Manual online) at intervals of 45 days, for a period of 225 days. The population of filamentous fungi and yeasts ranged from 3 UFC.mL^{-1} . The presence of total coliforms, *E. coli* and *Salmonella* spp. not been found in the prebiotic beverage. These results indicate that the product showed microbiological stability during shelf life and is in accordance with sanitary standards for food set by the Ministry of Agriculture, Livestock and Food Supply and National Health Surveillance Agency. The thermal treatment adopted in the prebiotic beverage was effective in reducing spoilage microorganisms, eliminate pathogens and secured the microbiological stability of the product during 225 days of storage.

Palavras-Chave: prebiotic beverage, phenolic compounds, fructooligosaccharides, *Smallanthus sonchifolius*, microbiological safety

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