

DEVELOPMENT OF AN ANTIOXIDANT GEL-CREAM FORMULATION CONTAINING JABOTICABA EXTRACT (*Myrciaria cauliflora*)

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ABSTRACT

Jaboticaba (*Myrciaria cauliflora*) is a fruit present in the Brazilian flora known for its whitening, antioxidant, anti-inflammatory, and antimicrobial properties. The extract of jaboticaba peel is rich in anthocyanins which, because they belong to the group of flavonoids, have a polycyclic chain that acts on the anti-aging and anti-sagging factor. In addition to assisting in the processes of cell regeneration and healing. The objective of the present study was to develop and characterize a gel-cream formulation containing jaboticaba extract. The gel-cream formulation was prepared in three phases, the first containing water, EDTA, glycerin and xanthan gum. The second containing BHT, arlamol HD, crodamol GTCC and viscoptma SE. And the third phase containing eoxyzyl and the presence of an alkalizing agent in order to obtain a final pH of 6.0. 0.5%, 2% and 5% (w/w) of jaboticaba dry extract were added to the formulations and organoleptic tests, water activity test and pH measurement were performed. The analyses were carried out between September 2024 and March 2025. During this period, the samples remained stable and with the desirable characteristics for a formulation, with the exception of the 2% sample, which presented a fungal colony after five months, but this did not detract from the appearance and color of the gel-cream. In addition, the tests in the water activity analyzer, at a temperature of 24.9 °C, revealed a result of 0.9937 Aw for the formulations with jaboticaba extract. Thus, it can be suggested that formulations containing jaboticaba extract indicate potential self-preservation and stability in the period of approximately six months, even with high water activity, due to the composition itself.

Keywords: Gel-cream. Jaboticaba. Cosmetics.

Funding Agencies: UFRRJ, PICV

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