PROCESSING OF PULP CAGAITA (*Eugenia* dysenterica DC) MICROFiltrATION SYSTEM IN EVALUATING THE PROCESS AFTER LOSS OF CAROTENoIDS.

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The cagaita is a fruit of the Brazilian Cerrado region with commercial potential for its nutritional composition and sensory quality, however the profile of carotenoids from the fruit is little known. Microfiltration membrane processes are a technological reality, can minimize nutrient losses, promote cold sterilization and allow the full utilization of the permeate and the retentate. The objective of this study was to identify the carotenoids in the cagaita pulp by HPLC, before and after the microfiltration process using a 0.3 μm tubular polyethersulfone membrane, pressure of 2.0 Bar at room temperature and evaluate the post-process losses. Chromatographic conditions were chromatograph Waters 2695 model Alliance with Watters 996 detector, network LED UV/Visible from 350 nm to 600 nm, C30 column and mobile phase composed of 80% methanol and 20% methyl tert-butyl. The cagaita pulp was acquired in Damianópolis, Goias, Brazil. The results revealed differences in total carotenoid contents the samples saponified pulp (5.83 μg/g) before extraction for analysis, compared to non-saponified (8.22 μg/g). The carotenoids found in the cagaita pulp were β-carotene (1.70 μg/g), β-cryptoxanthin (1.49 μg/g), α-carotene (0.18 μg/g), lutein (0.85 μg/g), zeaxanthin (0.79 μg/g), and isomers of 9-cis-β-carotene (0.20 μg/g) and 13-cis-β-carotene (0.09 μg/g). It was observed an increase of carotenoids in the retentate and it was not possible to quantify the carotenoids in the clarified pulp. Possibly, the membrane concentration polarization phenomena occurred during the process at the pressure used retaining the micronutrients. Lower pressures will be used to verify if the carotenoid looses will be reduced.