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Irradiation of camu camu (*Myrciaria dúbia*) pulp.

M. Freire Jr.*¹, J. Santos², A. G. Soares¹, M. Fonseca¹, L. M. C. Cabral¹
¹*Embrapa Agroindústria de Alimentos, Brazil*, ²*Universidade Estácio de Sá, Brazil*

The camu camu is a native fruit from Amazonian and it has obtained increasing attention due to its higher content of vitamin. This substance can be lost during the conventional process used for juice pasteurization and concentration. This work aimed to evaluate the irradiation of camu camu pulp regarding the physical, chemical and nutrition quality of the irradiated product. Camu camu from Tomé Açú, Para state - Brazil was used as raw material. The fruits were submitted to the usual steps of the fruit pulp processing: selection, washing and depulping (accomplished in a finisher with a sieve of 0.6 mm). The pulp was conditioned in plastic bags of 500 g and maintained at -18°C until the irradiation. The pulp was irradiated at 0, 500, 750 1000 and 1500 Gray. The irradiated fruits and the non-irradiated control ones were stored under refrigeration at 10°C during 60 days. Fruits from the experiment were evaluated at the beginning and at each treatment intervals. Five samples were gotten for each characterization. The following analyses were realized: pH, soluble solids contents and titrable acidity, ascorbic acid content, It was verified that there was no significant difference in the physical and chemical properties as well as on the vitamin C content during storage. The irradiation was effective to preserve the quality of camu camu.

Keywords: Amazonian fruit, vitamin C, conservation

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Characterization of watermelon juice concentrated by reverse osmosis process.

F. S. Gomes*¹, P. C. Albuquerque¹, M. B. Campos³, S. Couri², L. M. C. Cabral²
¹*Departamento de Ciencia e Tecnologia de Alimentos - UFRRJ, Brazil*, ²*Embrapa Agroindústria de Alimentos, Brazil*, ³*Universidade Estácio de Sá, Brazil*

Watermelon is a tropical fruit with excellent flavour, color, sweetness and succulence. Nowadays it is pointed out as an excellent source of lycopene, a carotenoid with antioxidant property. The objective of this work was to concentrate watermelon juice by reverse osmosis to obtain a concentrated product rich in lycopene. The juice was obtained by the depulping the fruits in a finisher with a 0.8 mm. Reverse osmosis was carried out in a pilot plant unit with composite membranes (conditioned in a plate and frame module. totalizing a permeate area of 0.72m². The process was carried out at 30°C, 60 bar and 650 L/h flow rate. Samples Lycopene content was determined by extraction with hexane measured in spectrophotometer at 503 nm. Antioxidant capacity s was evaluated by extraction with hexane followed by the quantification using ABTS as radical and Trolox as standard. The color loss was determined in spectrophotometer at 734nm after 15 min of reaction of the sample with the ABTS. The mean permeate flux was 22L¹h¹m

Keywords: *Citrullus lanatus*, cold concentration, lycopene, antioxidant capacity

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Study of the Quality Aspects of Different Processed Mashed Potatoes

L. Alessandrini*, P. Rocculi, S. Romani, M. Dalla Rosa
University of Bologna, Italy

Mashed potato products are widely consumed in Europe and represent an important segment of potato-based convenience food both for individual households and catering institutions. They are marketed mostly in dry form either as drum-dried potato flakes or as potato granules manufactured with an add-back process and air-drying. All these products are also used as intermediate material, which could be either formed and fried into French fried potatoes and potato chips or mixed with other ingredients to make dumplings or other kinds of pasta with different shapes (*gnocchi*).

The aim of this research was to study the effect of processing on the quality of mashed potato products made with fresh potatoes.