



CAROTENOID CONTENT, ANTIOXIDANT ACTIVITY AND SENSORY EVALUATION OF LOW-CALORIE NOPAL (*OPUNTIA FICUS-INDICA*) MARMALADE.

ABSTRACT

In this study, low-calorie nopal marmalades were analyzed to evaluate the effect of storage conditions on the carotenoids in terms of sensory and chemical properties and antioxidant activity. The results showed that the sensory characteristics of all nopal marmalades were similar to the marmalades that were elaborated with sucrose; the spreadability capacity of the nopal marmalades is better. The concentration of nopal influenced both the chemical characteristics as the concentration and antioxidant activity of carotenoids in the marmalade. The thermal treatment increased the extractability of the carotenoids, principally of β -carotene and lutein. The temperature and storage time led to a decrease in the concentration of β -carotene and lutein, while the concentration of α -cryptoxanthin increased, possibly due to the dehydroxylation of lutein. In conclusion, the antioxidant properties of nopal are maintained in the thermal treatment used for the elaboration of the marmalades, and the product is stable for 3 months.

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