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Total phenolics and anthocyanins contents of *açaí* pulp after pasteurization

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Introduction: The increased consumption of frozen *açaí* pulp has required that a thermal treatment step were introduced in its processing as a requirement for assuring the product safety. *Açaí* is a tropical fruit native of Amazon and its growing market is mainly due to its composition in bioactive compounds making it a potential functional product. The objective of this work was to evaluate the effect of the pasteurization process conditions on the total phenolics and anthocyanins content of the *açaí* pulp.

Methodology: The *açaí* fruit was harvested from natural populations in Pará state, Brazil. It was extracted in a mechanical *açaí* depulper and it was characterized as a medium pulp (13% total solids), according to the Brazilian legislation. Pulp was homogenized and conducted to the pasteurizer unit. The tested conditions followed a composed rotational experimental plan, with temperature and time as independent factors and the total phenolics and anthocyanins contents as the main responses.

Results and Discussion: Results showed that the two factors or their interactions were not significant at 95% probability, which means that nor the total phenolics or the anthocyanins contents were not significantly affected by time or temperature on proposed levels. When evaluating statistically the means, significant differences were observed between factors and responses. It was noted a tendency of a higher anthocyanin concentration, as expected, in the region of lower temperature and lower time as this pigment tends to degradation with heating. Relating to the total phenolics it was observed a small decreased value in the pasteurized pulps when comparing to the control, non pasteurized.

Conclusions: There is a range of time and temperature pasteurization conditions that permits to attain safety and preserve the quality of the pulp. Among the evaluated conditions the 90^{o}C/35s temperature/time condition was selected as the most appropriate for *açaí* pasteurization.