



RESEARCH THAT RES NATES

AUGUST 17-21, 2014 | MONTREAL, CANADA

IUFoST 17<sup>th</sup> WORLD CONGRESS OF  
FOOD SCIENCE AND TECHNOLOGY & EXPO

# BOOK OF ABSTRACTS\*

\* Please note if you do not find a set of abstracts for a Concurrent Session, this is because we did not receive a set of abstracts for that session.

[www.iufost2014.org](http://www.iufost2014.org)

Congress Hosts



CIFST

Unmoderated Poster Session: Food Chemistry

**Colorimetric Change of Assai (*Euterpe oleracea* Mart.) after Preservation and Thermal Processing of the Fruit**

Valeria Bezerra<sup>1</sup>; Otniel Freitas-Silva<sup>2</sup>; Agnelli Oliveira<sup>2</sup>; Lourdes Cabral<sup>2</sup>; Leandro Damasceno<sup>3</sup>

<sup>1</sup>IQ/UFRJ e Embrapa Amapá, Rio de Janeiro, RJ, Brazil; <sup>2</sup>Embrapa Agroindústria de Alimentos, Rio de Janeiro, RJ, Brazil; <sup>3</sup>Embrapa Amapá, Macapá, AP, Brazil

The assai fruit is highly perishable and its seasonal production requires improvements in its transport chain, since the production of assai in

UP371

Amazonian areas is far from the consumer center. Those characteristics promote a decline in visual quality of the fruit at the time of commercialization and consequently of the beverage processed. The aim of this study was to evaluate the influence of the assai fruit conservation and heat treatment, usually applied before its transformation into a pulp or beverage by artisan processing. Assai fruits were collected in 2013 in Mazagão, Brazil, packed in polypropylene bags, vacuum sealed and refrigerated (8-10°C) during four days. The treatments consisted of i.) fruits packed under vacuum (T1), ii.) fruits softening with potable water at 45°C for 20 minutes before bleaching (T2), iii.) fruits which have not been softened before bleaching (T3), iv.) fruits bleached at 80°C for 10 seconds (T4) (Rogez et al., 1996) and v.) packaged fruit pulps prepared in the presence (T5) and vi.) absence of vacuum (T6). The instrumental color of fruits and pulps was evaluated by colorimeter CR-400 Konica Minolta. Fruit pulp preserved in vacuum (T5) showed the darkest luminosity ( $L^*29.39$ ), well as a more reddish color ( $a^*8.51$ ) and also more blue ( $b^*-4.10$ ). Considering  $\Delta E$  12.55, there was a significant difference between vacuum packed fruit (T1) and without vacuum fruit pulps (T6). Otherwise, pulps from vacuum packed fruits (T5) and ones with absence of vacuum packed fruits (T6) also presented statistical difference ( $\Delta E$  7.80). The highest value  $C^*$  was observed in vacuum packed pulps (T5) (9.45), which presented with a brighter and stronger color than the fruit pulp without vacuum (T6) ( $C^*7.01$ ). Regarding  $H^\circ$ hue, the pulp from fruits without vacuum (T6) showed higher values ( $H^\circ78.36$ ) when compared to the pulp from fruits under vacuum (T5) ( $H^\circ73.84$ ). Compared to thermal processing, bleaching was not statistically influenced by purity of the color ( $C^*$ ) of softened fruit pulps (T2) ( $C^*8.50$ ) and fruit pulps that were not softening (T3) ( $C^*8.00$ ). The highest total color difference was observed in the bleached pulps that were previously softened (T4) ( $\Delta E12.85$ ). Assai fruits vacuum packed retain the best attributes of drink produced. Softening of the fruit before bleaching also influences the change in color of the drink, which may represent significant quality loss for the product and value for the merchant and consumers.