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CHARACTERIZATION OF JUSSAÍ (*EUTERPE EDULIS*) CULTIVATED AT RIO DE JANEIRO

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Background & Objectives: Assaí jussara (*Euterpe edulis*) or jussaí is a palm from Rio de Janeiro Atlantic Forest. Many studies have been report that its antioxidant activity is five times highest fro assaí (*Euterpe oleracea*). The objective of this study was to characterized three samples of liophylized jussaí.

Methods & Results: The centesimal composition, iron and zinc (by ICP), antioxidant activity, phenolic compounds, anthocyanins (HPLC) and total antocyanins (Spectrophotometry) in freeze-dried in natura pulp samples were evaluated. The contents of centesimal composition were: moisture $4.91 \pm 0,021$; ash 3.86 ± 0.13 ; proteins $1.17 \pm 0,05$; lipids $38.64 \pm 0,90$; fiber 40.73 ; carbohydrates 5.13 ($\text{g} \cdot 100 \text{g}^{-1}$) and caloric value $395.20 \text{ Kcal} \cdot 100 \text{g}^{-1}$. The antioxidant activity was $31.67 \text{ mg-cyanidin-3-o-glycoside} \cdot 100\text{g}^{-1}$; $100\text{g}^{-1} \mu\text{mol}$; ORAC - $2690.93 \pm 206.8 \mu\text{mol Trolox} \cdot \text{g}^{-1}$; total anthocyanins $1833.55 \text{ mg-cyanidin-3-o-glycoside} \cdot 100\text{g}^{-1} \pm 91.93$; $386.63 \text{ mg-cyanidin-3-o-glycoside} \cdot 100\text{g}^{-1} \pm 6.43$ and, $1263.49 \pm 29.85 \text{ mg-cyanidin-3-o-runenoside} \cdot 100\text{g}^{-1}$. The contents of chrome, aluminum, iron and zinc were, respectively: 22.26 ± 1.95 ; 3.536 ± 0.29 ; 171.00 ± 13.13 +- and 37.36 ± 0.65 . Some carotenoids were still identified lyophylized jussaí as lutein, beta-carotene, 13 and 9-Z-beta-carotene and total carotenoids: $19.12 \mu\text{g} \cdot \text{g}^{-1} \pm 27.57$; 22.73 ± 148.99 ; 0.35 ± 22.62 and 0.34 ± 28.99 , respectively.

Conclusions: The results were very significant since the lyophilized jussaí pulp can be applied as a functional supplement for people to minimize the effects of the oxidative stress.

Significance and Impact of the Study: the present work is very significant since with this results, our working group will make nanoemulsions among other products that can benefit the people health.

Conflict of interest disclosure: There is no conflict of interest



Keywords: jussai, *Euterpe edulis*, characterization, freeze-drying, phenolic compounds, antioxidant activity.



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TO WHOMSOEVER IT MAY CONCERN

This is to certify that the following two posters (**#745 and #746**) were presented during IUFoST 2018 India World Congress during October 23-27, 2018 at Navi Mumbai, India. The presenting author for both the poster presentations was Lucia Maria Jaeger de Carvalho; Rio de Janeiro Federal University, Brazil.

The details of two posters were as follows:

#745 in Session 06 on Oct. 27, 2018

Characterization of jussai (*Euterpe edulis*) cultivated at Rio de Janeiro

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#746 in Session 05 on Oct. 26, 2018

Carotenoids contents in pumpkins (*Cucurbita moschata*) cooked in different cooking styles

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Further, the poster presentation #746 entitled "Carotenoids contents in pumpkins (*Cucurbita moschata*) cooked in different cooking styles" was one of the poster awardees in IUFoST 2018. This was presented by Lucia Maria Jaeger de Carvalho, Rio de Janeiro Federal University, Brazil, for which the Certificate was presented only to the presenting author.

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and Distinguished Scientist of CSIR

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