

**Abstract No:746****CAROTENOIDS CONTENTS IN PUMPKINS (*CUCURBITA MOSCHATA*) COOKED IN DIFFERENT COOKING STYLES**

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**Background & Objectives:** Pumpkins (*Cucurbita moschata*) normally present a very high content of carotenoids, specially  $\alpha$  and  $\beta$ -carotene. The objective of this study is to evaluate two genotypes of pumpkins cultivated at Embrapa Coastland Tables, Teresina, Brazil after cooked in different styles in order to select to improve the content of these micronutrients for low income people. The analyses were carried out at Laboratório de Tecnologia e Análise Instrumental de Alimentos as well Embrapa Food Thecnology, Rio the Janeiro, Brazil.

**Methods & Results:** Samples were cooked in boiling water, steamed, microwave with water and without water. The samples A and B were analyzed as total carotenoids by UV.vis spectrophotometry and  $\alpha$  and  $\beta$ -carotene and the isomers 9 and 13-Z-  $\beta$ -carotene by HPLC. The results for total carotenoids in both samples were  $145.53 \pm 23.30 \mu\text{g} \cdot \text{g}^{-1}$  and  $271.48 \pm 14.60$  cooked in boiling water. Samples cooked under steam presented  $156.70 \pm 27.00$  and  $253.15 \pm 50.02$ . On the other hand samples cooked with water in a microwave oven presented total carotenoids  $39.47 \pm 14.43$  and  $245.55 \pm 17.54 \mu\text{g} \cdot \text{g}^{-1}$  when cooked without water they presented  $84.66 \pm 5.88$  and  $358.84 \pm 18.64$ , respectively. The highest  $\beta$ -carotene contents was found after the microwave oven cooking style without water addition.

**Conclusions:** The  $\beta$ -carotene was the most abundant micronutrient in both genotypes giving the possibility to be selected for the conventional plant improvement.

**Significance and Impact of the Study:** the present work is very significant since with these results, our working group continuing to search the best genotype to recommend for its cultivation and consumption for the low income people of Brazil.

**Conflict of interest disclosure:** There is no conflict of interest



**Keywords:** pumpkin, *Cucurbita moschata*, carotenoids,  $\beta$ -carotene, cooking styles, genotypes.



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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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**Please Note:** The names of presenting author along with co-authors were those uploaded in IUFoST 2018 Webpage Poster Abstracts Submission Portal, with no additions or deletions in the list can happen once uploaded first time.

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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