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Comparison of the Total Carotenoid Contents in Raw and Cooked Landrace Pumpkin (*C. moschata* Duch.): Preliminary Study

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Abstract. Landraces varieties of pumpkin must be investigated to evaluate their potential as source of pro vitamin A and to recommend their use in breeding or biofortification programs, already being implemented in Brazil and worldwide. The aim of this study was to determine and compare the total carotenoids contents in pumpkin landraces (*Cucurbita moschata* Duch) raw, steam cooked, cooked in water and pumpkin sweet to verify which one best retain these micronutrients. Pumpkins were cultivated at Embrapa Coastal Tablelands, Aracaju, Brazil in august 2010, with a 120 day-harvest cycle. Each sample was cut into 4 parts. The raw part was used to determine the total carotenoids; three parts of each sample were codified as: I sample cooked in water, V sample cooked under steam and D pumpkin sweet. UV/Visible spectrophotometry was used to determine the total carotenoid contents. All analyses were carried out in triplicate and results are expressed in wet basis. The steam cooking time (18 minutes) and pumpkin sweet (19 minutes) were quite longer compared to water cooking method (13 minutes). Total carotenoid contents were 171.59 µg/g (± 3.26) in the raw pumpkin; 200.53 µg/g (± 10.91) in the sample cooked in water; 179.78 µg/g (± 22.82) in the sample cooked under steam and 247.53 µg/g (± 16.37) cooked in water plus sugar (pumpkin sweet), respectively. It was observed highest carotenoid content in the pumpkin sweet. More studies are being carried out with others landrace cultivars.

Keywords**:** total carotenoid, pumpkin, cooking.

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