Total carotenoids, α-carotene and β-carotene of landrace pumpkins (*Cucurbita moschata duch*): A preliminary study

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**Introduction:** A large part of the population in developing countries, such as Brazil, and those below the poverty line, suffer from Vitamin A deficiency, mainly children and pregnant women. Landrace pumpkins occur in nature and their potential as source of pro-vitamin A may be investigated in order to be used in conventional plant breeding or biofortification programs, aiming to increase the total carotenoids and β-carotene contents. The objective of this study was to determine the total carotenoid, β-carotene and α-carotene contents in two samples (A and B) of raw pumpkins (*Cucurbita moschata Duch*) to verify its seed production potential.

**Methodology:** The pumpkins were cultivated in June 2009, within a 120 day harvest cycle. High Performance Liquid Chromatography and UV/Visible spectrophotometry were used to determine β-carotene and α-carotene, and total carotenoid contents. All analyses were carried out in triplicate.

**Results and Discussion:** The results showed mean total carotenoid contents of 344.7 in sample A, and 234.21 µg/g in sample B. The contents of total α-carotene varied from 67.06 to 72.99 µg/g in samples A and B, respectively. Total β-carotene content varied from 258.16 µg/g to 151.69 µg/g of β-carotene in samples A and B, respectively.

**Conclusions:** The content of total β-carotene in raw sample A showed to be promising for the production of seeds for cultivation and consumption.

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