

Quantification of Provitamin A and Vitamin C in *Passiflora alata* Curtis and *Passiflora edulis* f. *edulis* Sims Using HPLC

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The edible fruit species of the genus *Passiflora* L. are important for their nutritional value, health-promoting components, and medicinal properties. Nutrient composition studies of the rare and lesser common *Passiflora* species remain central to assess their potential health benefits. In this work, pulp extracts of *P. alata* Curtis (sweet passion fruit), a species from Brazilian, Colombian and Peruvian Amazon, were analyzed to determine provitamin A and vitamin C contents using High Performance Liquid Chromatography (HPLC) and the results were compared with those obtained for *P. edulis* f. *edulis* Sims (purple passion fruit). On a fresh weight (fw) basis, *P. alata* and *P. edulis* f. *edulis* contain 3591 g/100 g and 4346 g/100 g, respectively, of provitamin A (all- trans- β -carotene). Therefore, the vitamin A content of *P. alata* measured in retinol activity equivalents (RAE) is 299.3 g RAE/100 g (5985 IU/100 g) and that of *P. edulis* f. *edulis* is 362.2 g RAE/100 g (7243 IU/100 g). The total amount

of vitamin C (acid L- ascorbic and dehydroascorbic acid) found in *P. alata* was 5.78 mg/100 g and *P. edulis* f. *edulis* was 19.12 mg/100 g. Our results indicate that consumption of sweet passion fruit and purple passion fruit could provide meaningful amounts of vitamin A and vitamin C, which would contribute to achieve the recommended daily intake for both vitamins.

Speaker Biography

Juan Manuel Parra Gomez is a final year undergraduate student at National University of Colombia, Colombia, South America. He is expected to receive his Chemical Engineer degree in september 2019. He joined the bioproducts research group of Susana Hernandez at the same university in february 2016 to work on the identification of *Ganoderma* species from Colombia, cultivation of *Pleurotus* mushrooms, and quantification of vitamin C and provitamin A in *Passiflora* species cultivated in Colombia, using HPLC. The purpose of the bioproducts research groups is to provide information that can be applied in biotechnology to solve health and nutrition problems

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