



Essential oil yield in developed leaves of *Pereskia aculeata*

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Keywords: *Pereskia aculeata*, chemical composition, essential oil.

Unconventional vegetables, used as functional foods, are important for food security, conservation and management of biodiversity and cultural heritage for future generations. The functionality is determined by reference to bioactive compounds and ethnomedicinal use. *P. aculeata* Mill. (ora-pro-nobis), Cactaceae, is an unconventional vegetable species native to the Americas, taking place from Florida (USA) to Argentina. As a rustic plant, it adapts better to the tropical and subtropical climate and prefers well-drained soil, which is, in Brazil, characteristic in the region from the Northeast to Rio Grande do Sul. It is popularly used in anti-inflammatory processes, iron deficiency anemia, antioxidant activity (1), among others. Its leaves are a rich source of protein and minerals such as calcium and iron. The production of these compounds is influenced by plants physiological factors. This study aims to quantify the essential oils leaves yield from *P. aculeata* grown in dense system (three installment with 10 plants per m²). The plants were grown since February 2011, subjected to successive crops, which the last was in February 2015. Thus, most of its leaves were found well developed in size and thickness, characterized as old leaves. 1,000 g of fresh leaves per installment were collected forming composite samples (3,000 g). The leaves were processed and dried in a forced air oven at 40 °C until reach constant weight. The extraction of the essential oil obtained from *P. aculeata* was performed according to the procedure described in European Pharmacopoeia (2), where 100 g of dried leaves were subjected to hydrodistillation for 3 hours, with three replications. The results were expressed in mL kg⁻¹ of dried plant. The essential oil yield from developed leaves was 0.6 mL kg⁻¹ under the conditions of this experiment.

1. Souza, R.M.F. et al., Bioscience Journal, 2014, **30**, 448-457.

2. European Pharmacopoeia Council, European Pharmacopoeia, 2004, 218.

Acknowledgements: FAPEMIG and CNPq.