



## The essential oil content of *Vernonia polyanthes* Less evaluation at different times of collection

Daniela Aparecida Teixeira, Jordany Aparecida de O. Gomes, Filipe Pereira Giardini Bonfim, Gabriela Roque Miranda

Universidade Estadual Paulista "Júlio de Mesquita Filho" Faculdade de Ciências Agrônômicas, Departamento de Horticultura, Fazenda Lageado, Portaria I: Rua José Barbosa de Barros, nº 1780, Cx. Postal 237, CEP 18.610-307- Botucatu, SP; daniela.teixeira@hotmail.com

Keywords: assa-peixe, essential oil, seasonality

The assa-peixe (*Vernonia polyanthes* Less.) is widely used in popular medicine in cases of bruises, hemorrhoids, uterine infections, bronchitis and as diuretic. The species has in its composition fixed acids, alkaloids, amino groups, coumarins, anthraquinone glycosides, flavonoid glycosides, saponins glycosides and essential oils. It is one of the plants found in the SUS interest list (RENISUS). Considering the value of medicinal plants not only as a therapeutic resource, but also as a source of income for family farms, it is important to establish lines of action aimed at developing management techniques, targeting the use of this species, together with the maintenance the balance of tropical ecosystems. Therefore, this study aimed to evaluate the essential oil content of *V. polyanthes* in three seasons collection in a native area located in the didactic orchard of the Department of Horticulture and deposited in the Herbarium Irina Delanova Gemtchujnicov, Universidade Estadual Paulista, Botucatu SP under BOTU record 25797-assa-peixe. Completely randomized design was used with three treatments in 60 days gathering intervals, and the collection in November 2014, February and May 2015. Plant material of 10 plants was collected and made up the sample comprised a total of five repetitions. Fifty grams of dry biomass (dried at 38 °C in an oven with forced circulation) were used for each essential oil extraction. Essential oil from leaves was extracted by hydrodistillation in a Clevenger type apparatus 2 h. The results for the essential oil content were subjected to analysis of variance, followed by comparisons of means by Tukey test at the level of 5 % probability. The content was determined based on 100 g of dry biomass leaves. There was no statistical difference in the essential oil content presented in different times of collection, being found in November (0.12 %), February (0.15 %) and May (0.18 %). Based on the results, it is concluded that the collected plant material can be in any of the measured times, giving preference to those that have larger amount of plant leaves.

1. Alzugaray, D;Azungaray, C. Flora Brasileira – Primeira Enciclopédia de Plantas do Brasil, 1984, **1**, 65-66.
2. Lorenzi, H.; Matos, F.J.A. Plantas Medicinais do Brasil: nativas e exóticas, 2<sup>a</sup> ed. Nova Odessa: Instituto Plantarum, 2008, 544.

Acknowledgements: CAPES.