



## SEASONAL EXTRACT STUDY OF LEAVES *Miconia chamissois* Naudin

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### INTRODUCTION

*Miconia chamissois* Naudin is a species from the Cerrado known as pixirica, folha de bolo and sabiazeira, present in Vereda's physiognomy. Some species of the Melastomataceae family have therapeutic potential as anti-inflammatory, hepatoprotective (Mamat et al 2003, BMC Altern Med Complement), antinoceptive (Zakaria et al 2016, BMC Altern Med Complement) and antimicrobial (Cassiano et al. 2014, Nat Prod Res) due the presence of flavonoids, triterpenes, steroids and tannins. The present study aims to carry out a seasonal evaluation of the The present work aims to carry out a seasonal evaluation of the aqueous extract of leaves of *Miconia chamissois*

### MATERIALS AND METHODS

The plant material was collected from May / 17 to August / 18 in Brasília and deposited esxicata at the University of Brasília herbarium under the Fagg CW 2358 voucher. The weather data were provided by the Automatic Agrometeorological Station - FAL / UNB. The dried leaves were extracted by infusion according to pharmacopoeial method (Brasil, 2011). The phytochemical investigation of the extract was performed by measuring the total polyphenol and flavonoid content (Kumazawa et. Al. 2004, Food Chem). Data were statistically analyzed by Kruskal-Wallis and Pearson correlation (r).

### RESULT

For polyphenols content were obtained 20.73  $\mu\text{g GA} / \text{mg}$  (May / 17); 19.28  $\mu\text{g GA}$

/ mg (Nov / 17); 18.58  $\mu\text{g GA} / \text{mg}$  (Feb / 18); 18.60  $\mu\text{g GA} / \text{mg}$  (May / 18) and 19.11  $\mu\text{g GA} / \text{mg}$  (Aug / 18) with  $\pm 20\%$  variation and mean of 19.25  $\mu\text{g GA} / \text{mg}$  ( $\pm 0.87$ ), with significant difference between the contents of May / 17 and Aug / 18 and Nov / 17 and Aug / 18, while for total flavonoids 8.28  $\mu\text{g EQ} / \text{mg}$  were obtained; 7.70  $\mu\text{g EQ} / \text{mg}$ ; 7.58  $\mu\text{g EQ} / \text{mg}$ ; 7.73  $\mu\text{g EQ} / \text{mg}$  and 6.91  $\mu\text{g EQ} / \text{mg}$  for the same period with a variation of  $\pm 20\%$  and a mean of 7.48 (0.49), with a significant difference between May / 17 and Aug / 18 ( $p = 0.010$ ). A weak negative correlation was observed between polyphenol content and global radiation parameters, maximum and minimum temperature during the study period, with non-significant values ( $p = 0.20$ ;  $p = 0.43$ ;  $p = 0.46$ ) and negative correlation. weak between flavonoid content ( $p = 0.41$ ), moderate to maximum temperature ( $p = 0.09$ ) and strong to minimum temperature ( $p = 0.19$ ) with no significant difference. The strong negative correlation suggests that the parameters are inversely proportional.

### CONCLUSION

The results corroborate the research related to the species, being observed the presence of characteristic compounds of the Family. Higher polyphenol content was obtained than total flavonoids. A strong correlation was observed between minimum temperature and flavonoid content, however not significant.

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