

## AQUEOUS EXTRACTION METHODS INFLUENCE ON THE TOTAL PHENOLIC AND FLAVONOID CONTENTS AND ANTIOXIDANT CAPACITY OF CARQUEJA INFUSIONS

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### Categoria da apresentação

Pôster

### Palavras-chave | Keywords:

[Baccharis](#)

[Asteraceae](#)

[Antioxidant capacity](#)

### Resumo (Texto Científico) - Máximo 300 palavras | Abstract (Scientific Text) - (Maximum 300 words):

Baccharis trimera (BT) and Baccharis myriocephala (BM) are used as medicinal infusions to combat diseases like diabetes. This work aims to evaluate the influence of aqueous extraction techniques on the total phenolic content (TPC), total flavonoid content (TFC) and total antioxidant capacity (TAC) of BT and BM infusions. Fresh samples of these species were identified at ECT Herbarium Embrapa (R.S., Brazil). The extraction techniques were: E1 (traditional infusion) – dry ground material (0.2 g) was infused in boiling water (50 mL, 10 minutes), cooled, filtered and adjusted to 100 mL; E2 (decoction) – like E1, but herb was boiled together with water; E3 (ultrasonic cleaner assisted extraction) – like E1, but infusion was maintained in an ultrasonic cleaner; E4 – (microwave assisted extraction) – like E2, but using a microwave equipment (5 minutes). TPC, TFC and TAC were determined by Folin-Ciocalteu, aluminium chloride and DPPH assays. In BT samples, better TPC results were noted in E4 [(29.33 ± 0.66)mg of gallic acid equivalent/g of herb] and E2 [(28.91 ± 0.11)mg/g]. The better techniques to extract phenolic compounds from BM were E1 [(25.26 ± 0.86)mg/g], E2 [(26.15 ± 0.15)mg/g] and E4 [(30.92 ± 0.97)mg/g], which didn't differ statistically from each other. A TFC behavior similar to that described for TPC was noted in both samples, but the E2 value [(13.48 ± 1.08)mg of rutin equivalent/g of herb] of BT was higher ( $p < 0.05$ ) than E4 [(10.31 ± 0.73)mg/g]. The TAC of BT was statistically different when comparing E2 [(0.74 ± 0.16)mg/mL] with E3 [(1.63 ± 0.06)mg/mL]. In BM, E4 [(0.89 ± 0.02)mg/mL] showed an antioxidant activity higher than E1 and E3, but similar to E2 [(1,07 ± 0,06mg/mL)]. E4 was the better extraction method to prepare infusions, producing relative high TPC, TFC and TAC values in a shorter time.

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