



Optimization and Validation of the Quantitative Assay of Flavonoids in *Achyrocline satureioides* and *A. flaccida*

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SUMMARY. Several populations of *Achyrocline satureioides* and *Achyrocline flaccida* from Argentina, two aromatic herbal species widely used in traditional medicine in South America and both known as marcela, were analyzed. The aims of this work were to evaluate the amounts of flavonoids that characterize these species in this country and provide a quantitative assay to be included in the monograph of marcela for future Argentine Pharmacopoeia editions. The extraction method and analysis by HPLC of the main flavonoids, quercetin and 3-O-methylquercetin, were optimized. The validation parameters of the method were determined. The analysis of the different parts of these plants was carried out thereafter. Inflorescences were the parts displaying the highest content of such flavonoids. It was found that *A. flaccida* had a slightly higher content of flavonoids than *A. satureioides* (1.2 ± 0.4 % of quercetin, 0.8 ± 0.3 % of 3-O-methylquercetin; 0.8 ± 0.2 % of quercetin and 0.7 ± 0.5 % of 3-O-methylquercetin, respectively).

KEY WORDS: *Achyrocline flaccida*, *Achyrocline satureioides*, Flavonoids, HPL, Marcela.

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