

Physicochemical Characterization for Quality Control of *Equisetum giganteum* L.

Leandro N. FRANCESCATO ^{1*}, Dayane A. QUINTEROS ¹, Sérgio BORDIGNON ¹,
Valquiria L. BASSANI ² & Amélia T. HENRIQUES ¹

¹ Laboratório de Farmacognosia, Departamento de Produção de Matéria-Prima.

² Laboratório de Desenvolvimento Galênico, Departamento de Produção e Controle de Medicamentos,
Faculdade de Farmácia, Universidade Federal do Rio Grande do Sul,
Av. Ipiranga 2752, 90610-000, Porto Alegre, RS, Brazil

SUMMARY. This work presents physicochemical and chemical characterization of *Equisetum giganteum* L. stems, an endemic species of Latin America widely used in the traditional medicine, mainly as diuretic. The loss on drying, total ash and acid-insoluble ash values were $11.85 \pm 0.11\%$, $\geq 13.61 \pm 0.38\%$, and $\geq 9.43 \pm 0.35\%$, respectively. The total phenolic and flavonoid content were 7.27 ± 0.05 mg GAE/g and 0.42 ± 0.0141 g %, respectively. Data on drying, adsorption and sorption isotherms and other physicochemical determinations are also presented. Thin layer and liquid chromatography profiles revealed the presence of polyphenols. These results will provide important information for future studies involving the standardization and quality control of *E. giganteum* raw material and products.

KEY WORDS: *Equisetum giganteum*, Physicochemical characterization, Fingerprint, Quality control.

* Author to whom correspondence should be addressed. E-mail: leandrofrancescato@yahoo.com.br