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VARIABILITY IN RUTIN CONCENTRATIONS IN LEAVES OF FOUR VARIETIES OF Hancornia speciosa (APOCYNACEAE)

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Hancornia speciosa Gomes (Apocynaceae), known as "mangabeira", is studied for its pharmacological properties, such as antioxidant and anti-inflammatory effects, due to the presence of flavonoids like rutin in its leaves. However, the studies do not specify the botanical varieties used, which could affect the levels of bioactive compounds and have implications for the quality control of these plant materials. The objective of this study was to analyze the rutin concentrations in the leaves of four *H. speciosa* varieties cultivated at the Federal University of Goiás germplasm bank. The study was registered in SisGen (A2F6935). Leaf samples of the varieties *H. speciosa* var. *speciosa*, *H. speciosa* var. *cuyabensis*, *H. speciosa* var. *gardneri*, and *H. speciosa* var. *pubescens* were collected from three individuals of each variety and then desiccated. The extracts were prepared in a 1:10 ratio (g/mL) using ethanol P.A. 95% and analyzed by high-performance liquid chromatography (HPLC-DAD) to quantify rutin, which was used as a reference standard to build the analytical curve. Rutin concentrations varied among the varieties. *H. speciosa* var. *speciosa* showed the highest levels, ranging from 227.11 ± 7.90 µg/mL to 1271.93 ± 4.63 µg/mL. *H. speciosa* var. *cuyabensis* ranged from 355.21 ± 22.83 µg/mL to 1169.51 ± 45.79 µg/mL. *H. speciosa* var. *gardneri* had concentrations between 180.19 ± 21.12 µg/mL and 620.95 ± 58.15 µg/mL, while *H. speciosa* var. *pubescens* exhibited the lowest values, from 170.34 ± 61.29 µg/mL to 243.14 ± 11.19 µg/mL. These chemical variations directly affect the quality of herbal raw materials. *H. speciosa* var. *speciosa* and *H. speciosa* var. *cuyabensis* appear to be the most promising for pharmacological uses because they have the highest levels of rutin. The observed chemical variability emphasizes the importance of specifying the botanical variety used when obtaining the plant material.

Keywords: Apocynaceae, HPLC-DAD, quality control, rutin, chemical variability.