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ANTIOXIDANT POTENTIAL AND TOXICOLOGICAL EVALUATION OF Clitoria guianensis FROM THE BRAZILIAN CERRADO

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Clitoria guianensis, a species native to the Brazilian Cerrado and traditionally used in folk medicine, has been reported to contain bioactive compounds with pharmacological potential. However, the bioactive potential and toxicological characterization of its different plant parts remains scarce. This study aimed to investigate the antioxidant activity, and toxicity of *C. guianensis* stems and leaves. Stem extracts were obtained by sequential maceration with solvents of increasing polarity (hexane, ethyl acetate, and ethanol), while leaf extracts were prepared using ultrasound-assisted extraction under different ethanol concentrations and extraction times. The extracts were evaluated for total phenolic and flavonoid content, antioxidant potential (DPPH, ABTS, FRAP assays), and toxicity using *Artemia salina* and *Allium cepa* bioassays. Leaf extracts presented moderate yields of phenolics (35.17 ± 1.1 mg EAG g^{-1}) and flavonoids (34.38 ± 3.8 mg EQ g^{-1}), but no significant antioxidant activity under the tested conditions. Stem extracts exhibited low to moderate toxicity: the hexane extract showed LC_{50} = 1445.0 mg·L^{-1} and the ethanol extract LC_{50} = 245.5 mg·L^{-1} against *A. salina*, while *A. cepa* assays revealed no cytotoxic effects. Overall, *C. guianensis* demonstrated promising phytochemical potential and weak toxicity in specific extracts. These findings contribute to the chemical and toxicological knowledge of this Cerrado species and reinforce its relevance for pharmacological and biotechnological applications.

Keywords: *Ultrasound-assisted extraction; antioxidant activity; toxicity*