



PHYSICAL-CHEMICAL, MORPHOMETRIC CHARACTERIZATION AND PHYTOCHEMICAL COMPOSITION OF *Licania tomentosa* (BENTH.) FRITSCH FRUITS (CHRYSOBALANACEAE)

Barbosa, Yago Luís Pessoa¹;
Santos, Henrique de Sousa dos²;
Sousa, Sâmia Maria Gonzaga de³;
Carvalho Siqueira, Bruno Lima de⁴;
Silva Leal, Naiara Carine da⁵;
Nascimento Silva, Jurandy do⁶.

Laboratório de análise de alimentos do Instituto Federal de Educação, Ciência e Tecnologia do Piauí (IFPI), *Campus* Teresina Zona Sul (CTZS)

ABSTRACT

Taxon representatives members of *Licania tomentosa* (Benth.) Fritsch (Chrysobalanaceae) do not have a regular distribution in their area of occurrence, your dispersion occurs in a large part of the northeast region of Brazil and its use is commonly associated with civil construction, shading, in the afforestation of urban roads and landscaping, but the adoption of its fruits in human food is uncommon. In this sense, the objective was to analyze the morphometric characteristics of the fruits of *L. tomentosa* and their physical-chemical characterization, as a way of observing the potential that specie can present as food when recognizing already isolated compounds, their bioactive potential and when evaluating properties that can may be associated with their consumption. For this, a morphometric analysis of 42 mature fruits of *L. tomentosa* was carried out, and physical-chemical analyzes where the concentration of ascorbic acid, the potential for hydrogen (pH), total soluble solids by refractometry, total titratable acidity and lipid content were dimensioned. The morphometric test showed a weight and size of 23.55 ± 3.63 g; 4.81 ± 0.3 cm long and 2.98 ± 0.15 cm wide, values close to the size of plums and figs. The fruits of *L. tomentosa* have considerable ascorbic acid content (7.07 ± 0.19 mg / 100 g), neutral pH (7.12 ± 0.04), soluble solids in expressive quantities (21.76 ± 3.75 °Brix), low total titratable acidity (0.055 ± 0.007 g / 100 g), and relatively expressive lipid concentration (0.53 ± 0.04 g / 100 g). Several compounds have been identified in the fruits of *L. tomentosa* to which various properties are attributed, such as antioxidant, chemoprotective, anti-inflammatory, gastroprotective and hepatoprotective activities. Thus, our findings suggest that the fruits of *L. tomentosa* have several characteristics that make it possible to attract attention to their consumption and interest in the food industry, due to the technological potential of phytochemical compounds

¹ IFPI - CTZS. E-mail: yagoluis.barbosa@hotmail.com;

² IFPI - CTZS. E-mail: s.henrique@yahoo.com.br;

³ IFPI, CTZS. E-mail: mariaamyas@hotmail.com;

⁴ IFPI - CTZS. E-mail: siqueirabruno@icloud.com;

⁵ FPI - CTZS. E-mail: naiaracarineleal@outlook.com;

⁶ Universidade Federal do Piauí (UFPI) - *Campus* Universitário Ministro Petrônio Portella (CMPP), IFPI - CTZS. E-mail: jurandy@ifpi.edu.br.



observed in the specie, therefore, the development of studies associated with your fruits is relevant, to better assess its biotechnological potential and risks that may arise from its consumption.

Keywords: Applied Botany; Chemistry of Natural Products; Food Science.