



Traditional and Scientific Knowledge about Purple Cotton (*Gossypium Herbaceum*) in the Bacuriteua community, Amazon Region

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ABSTRACT

The therapeutic exploration of nature dates to the dawn of human civilization. Throughout history, medicinal plants have played a significant role in the practice of phytotherapy and in the search for new medicines (MOREIRA & OLIVEIRA, 2017). However, for plants to be used for therapeutic purposes, it is essential that they meet criteria of efficacy, safety and therapeutic actions. In addition, it is essential to provide information about the chemical composition, since misconceptions between distinct species, but known by the same popular name, are common. This study aims to present elements of traditional knowledge in the use of the plant *Gossypium Herbaceum*, known as purple cotton, used as a natural treatment in the community of Bacuriteua, in the municipality of Bragança do Pará.

Keywords: Therapeutic exploration, Bragança do Pará, *Gossypium Herbaceum*.

1 INTRODUCTION

The therapeutic exploration of nature dates to the dawn of human civilization. Throughout history, medicinal plants have played a significant role in the practice of phytotherapy and in the search for new medicines (MOREIRA & OLIVEIRA, 2017). However, for plants to be used for therapeutic purposes, it is essential that they meet criteria of efficacy, safety and therapeutic actions. In addition, it is essential to provide information about the chemical composition, since misconceptions between distinct species, but known by the same popular name, are common. This study aims to present elements of traditional knowledge in the use of the *plant Gossypium Herbaceum*, known as purple cotton, *used as a natural treatment in the community of Bacuriteua, in the municipality of Bragança do Pará.*

The medicinal plant known as Purple Cotton (*Gossypium Herbaceum*) is recognized for its effectiveness in treating several conditions, including cancer, epilepsy, depression, radical elimination,



diabetes, bacterial infection, and malaria (LARAYETA et al., 2021). Originally from India, this herb is cultivated in Africa, Asia and naturalized in Brazil, especially in the North and Northeast regions. Its cultivation is more common in arid and semi-arid environments, while in more humid areas, planting is less frequent due to the preference of this species for dry regions (ESTEVEES, 2015). Therefore, it is essential to understand the efficacy of the plant's active ingredients for its therapeutic application in the natural treatment of diseases.

2 OBJECTIVE

Relate the popular use of *Gossypium Herbaceum* "purple cotton" to its efficacy according to the specialized literature.

3 METHODOLOGY

The research was carried out in a descriptive qualitative approach, with field research, using interviews as data collection techniques to verify the use of the species in the researched population. Subsequently, a scientific survey was carried out on the active ingredients of the plant and their toxicity in scientific databases.

4 DEVELOPMENT

In the Bacuriteua community, residents make use of purple "cotton" (*Gossypium Herbaceum*) as a natural treatment for colds and flu. Recognized for its anti-inflammatory properties, this plant is also used as a remedy for coughs, asthma, and inflammation. Based on popular knowledge, in the community, the leaves are used for the preparation of lick, tea and juice. A common practice in the use of "purple cotton" in the community is the preparation of tea by means of decoction, where three leaves, dried or green, are employed, and the recommended amount for consumption is one cup before each meal throughout the day.

Traditionally, the use of home remedies to combat diseases such as flu, colds and digestive problems is common in communities due to the framework of knowledge related to the plant world in which these societies are in contact. Thus, the therapeutic use of medicinal plants has been an action that has been perpetuated from generation to generation in traditional communities, and has been proven in several phytotherapy treatises (CORREA JUNIOR, 1991).

In folk medicine, the juice, bath or tea from the purple cotton leaf (*Gossypium Herbaceum*) are used as a purgative, for the treatment of thuds, as an anti-inflammatory, pneumonia and lung strengthening, cough, colic, cleanliness for women, gastritis and sore throat. (SILVA, 2015).

This species has in its composition the presence of carbohydrates, tannins, starch, betaine, saponins, alkaloids, flavonoids, steroids, phenols, glycosides and terpenoids (SHARMA et al., 2011).



According to ETGES (2007), gossypol is among the main chemical constituents of *G. herbaceum* extract, which is present in the seeds, stem and root of cotton, has ethanol and hexane extracts with therapeutic active ingredients, diuretic, antibacterial, anti-ulcer activity, antioxidant potential, wound healing effect, antiepileptic, antidiabetic, anthelmintic and anti-ureolytic activities that have been attributed to *G. herbaceum* in the literature. In addition to having, unique properties such as antifertility, abortifacient, antitumor, antispermatogenic, contraceptive, antidibetic, antiviral, antibacterial, constipation and used in gastric irritation, diarrhea, dysentery, dysuria, rheumatoid arthritis and otalgia (SHARMA et al., 2011).

Another point is the toxic effects that can be explained, at least in part, by the presence of gossypol in *G. herbaceum* (ETGES, 2007). Other toxicity presented in the plant is male infertility, hair discoloration, malnutrition, diarrhea, muscle weakness, circulatory and kidney problems. It is not recommended to use it during pregnancy, as well as to avoid prolonged use and try to follow the dose indicated by health professionals correctly (OLIVEIRA, 2015).

5 FINAL THOUGHTS

In view of the great diversity of benefits and active factors that make up purple cotton, *G. herbaceum*, used in the treatment of diseases, due to its anti-inflammatory, antiepileptic, antidiabetic, anthelmintic and anti-ureolytic actions, it is worth emphasizing the great importance of the wealth of information regarding the knowledge of the use of purple cotton to treat the most diverse diseases, especially those that most commonly affect individuals such as influenza, fever, sore throat, worms, diarrhea, among others. However, this study indicates other investigations for safe use in the face of possible toxicities and adverse reactions of use.



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