

**Título: VEGETABLE EXTRACT ASSESSMENT OF *Peltophorum Dubium* (Spreng) Taub TO CONTROL DIFFERENT PATHOGENIC MICROORGANISMS**

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**Resumo:**

The native medicinal plants use in disease control is a widespread practice in Brazil. Many species are noted to present several commercially valuable activities, among the most promising this antimicrobial activity. In view of this, this study aims to evaluate the antimicrobial activity of ethyl acetate extract of *Peltophorum dubium* sheets on strains standards *Staphylococcus aureus* (ATCC 25923), *Staphylococcus epidermidis* (ATCC 12228), *Enterococcus faecalis* (ATCC 19433), *Bacillus subtilis* (CCCD B005), *Escherichia coli* (ATCC 25922), *Klebsiella pneumoniae* (ATCC 13883), *Pseudomonas aeruginosa* (ATCC 27853) and *Proteus mirabilis* (ATCC 25933). To obtain the extract, the leaves were dried at 40 °C and ground in a slicer. Was added to the powder ethyl acetate PA 1:10 (w/v). Then stirrer was placed in shaker for 24 hours, and then, formed mix was sterilized by vacuum filtration and centrifuged at 5000 rpm (revolutions per minute) for 15 minutes. Finally, rote-evaporated to ethyl acetate to completely removal. The extract was evaluated from the microdilution broth method, with concentrations of 200 mg/mL to 3.12 mg/mL. To extract dilution was used dimethylsulfoxide (DMSO) at 20%. The bacterial metabolism was observed with the naked eye using triphenyltetrazolium chloride (TTC) at 0.5%. We observed the growth inhibition of all strains, varying extract concentrations of 100 to 6.25 mg/mL. The *P. dubium* extract also showed bactericidal effect, except for *K. pneumoniae*. However, the best result was presented across strains of gram-positive bacteria, *S. aureus* and *S. epidermidis*, which showed inhibition and bactericidal activity of 6.25 mg/mL. It is concluded that the herbal extract can be considered a promising antimicrobial large especially for gram-positive bacteria. However, it is necessary to undertake further research on the biological activities in order to enhance the Brazilian flora and contribute to disease treatments.

**Palavras-chave:** antimicrobial activity, native plants, extracts plant.

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