

Título: PHYTOCHEMICAL SCREENING AND ANTIMICROBIAL ACTIVITY *Peltophorum dubium* (Spreng.) Taub. EVALUATION FRONT OF *Salmonella* spp. SEROVARS

Autores Souza, J.G.L. ¹, Toledo, A.G. ¹, Santana, C.B. ¹, Poersch, K.M. ¹, Pinto, F.G.S. ¹

Instituição ¹ UNIOESTE – Universidade Estadual do Oeste do Paraná (Rua Universitária, 2069, Jardim Universitário, 85.819-110, Cascavel-PR)

Resumo:

The plants study and their secondaries disease control has driven the several biological activities discovery of great economic importance as like antimicrobial activity has been explored for their potential in the poultry sector. In this sense, the study objective was to evaluate the ethyl acetate extract *Peltophorum dubium* (Spreng.) Taub antimicrobial effect against *Salmonella* spp. serotypes such as *Salmonella* Enteritidis (ATCC 13076), *Salmonella* Gallinarum (ATCC 1138), *Salmonella* Heidelberg (ATCC 8326) and *Salmonella* Typhimurium (ATCC 14028), by determining the minimum inhibitory concentration (MIC) and minimum bactericidal concentration (MBC) using the microdilution method, as well as the phytochemical screening compounds realization in this plant. To obtain the extract was added to the powdered plant ethyl acetate PA 1:10 (w/v) and kept this mix in a rotary shaker for 24 hours. Then, sterilization by vacuum filtration was conducted, and further, centrifugation at 5000 rpm (rotations per minute) for 15 minutes. Posteriorly, the extract was subjected to rote-evaporation to remove all the solvent. Finally, the extract was diluted with sterile distilled water and dimethylsulfoxide (DMSO) 20% at concentrations ranging from 200mg/mL to 3.12 mg/mL. It was observed in tests that the extract showed CIM front of the strains of *Salmonella* spp. at a concentration of 25 mg/mL, and most microbial susceptibility was observed for *S. Enteritidis*, showing MIC and MBC of 12.5 and 50 mg/mL, respectively. The *P. dubium* (Spreng.) Taub ethyl acetate extract CBM showed for all serotypes tested, with the lowest value found was of 50 mg/mL to the *S. Enteritidis* and *S. Heidelberg* strains. The phytochemical study showed the free steroids and pyrogallic tannins presence as secondary metabolites. Thus, it is concluded that was bacterial inhibition on all *Salmonella* spp. serovars tested, suggesting the *P. dubium* (Spreng.) Taub ethyl acetate extract as promising in the zoonosis control such as salmonellosis avian origin.

Palavras-chave: antimicrobial activity, *Salmonella* spp., phytochemical study.

Agência Fomento: CNPq, Fundação Araucária, Mestrado em Conservação e manejo de recursos naturais.