

Título: EFFECT OF HONEY COLLECTED IN MATO GROSSO DO SUL
ON *Staphylococcus aureus* "IN VITRO"

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Summary

The beneficial effect on the throat irritation is attributed to the antimicrobial action of honey and has been linked to the hydrogen peroxide content produced by the action of the enzyme glucose oxidase of metabolism of bees, that content may vary with the power supply. To demonstrate this effect were evaluated 20 samples of honeys collected in the municipalities of Mato Grosso do Sul: Aquidauana, Bela Vista, Bodoquena, Campo Grande, Camisão, Guia Lopes, Miranda, Maracaju, Nioaque and garden. The methodology of Kirby and Bauer to antibiogram was adapted with the impregnation of previously sterilized filter paper discs with each of the 20 samples of honey. A Petri dish of 18 cm diameter received 25 ml of Agar Baird Parker, previously inoculated still liquid (40° C) with 1 mL of suspension of the strain of *Staphylococcus aureus* (ATCC 0023) in saline solution set, the scale of 0.5 McFarland. After cold plates received 3 discs (A B and C) on the surface and were marked with symbols of samples of honey. Were also used over 2 discs with two controls. The positive was impregnated with cafelexina (0.1%) and a negative control received commercial syrup of glucose with Brix 81°, equivalent to that of honey. One of the cards received the records relating to the positive and negative controls. All the plates were incubated at 37° C for 12:0 am, after which the evaluation was made. The inhibition was classified as total (no growth) and partial, with the halo measured in mm. The results showed that all samples could be classified as antibacterial action. The average value of the halo of control with antibiotic was 17.99 mm and the positive control was 0, 5 mm for total inhibition. The variation of the halos of partial samples were 3.59 (sample 1) 18.36 mm (sample 21) and for total inhibition was 0.28 (34 sample) and 2.86 (sample 35). 1 sample obtained the best results in the two classifications, being collected from the city of Aquidauana and the other 4 outstanding samples were collected from the city of Campo Grande. Concludes that the honey features antibacterial action on *Staphylococcus aureus* in vitro.

Key words: *Apis mellifera*, antibacterial action.