

Title Acaricidal activity of *A. saturoioides* ethanolic extract associated or not with entomopathogenic fungus *B. bassiana*

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Abstract

Brazil has one of the largest herds in the world, estimated at 212.3 million head, but the prevalence of ectoparasites such as *Rhipicephalus (Boophilus) microplus* causes a major sanitary compromise and when not satisfactorily controlled, can lead to irreversible losses resulting from intense hematophagy, transmission of hemoparasites (tick complex / bovine parasitic sadness), low quality of the leather due to the lesions and reduction of the productive efficiency. It is estimated that the losses caused by this tick in bovine herds in Brazil already reach the amount of four billion dollars / year. Alternatives such as biological control and natural products have been frequently studied. The objective of this study was to evaluate the acaricidal activity of the ethanolic extract of *A. saturoioides* associated and not associated to *B. bassiana* entomopathogenic fungus. The extract was produced by maceration in absolute ethanol and concentrated in rotary rotoevaporator and the fungal suspension was obtained by counting spores in Neubauer chamber in saline solution. For the acaricide evaluation, the larvae were obtained from the Embrapa CPPSE and the test was carried out using impregnated paper contact methodology recommended by FAO. The extract concentrations used were 20 to 2.5 mg / mL and the fungal suspension was 10⁶ spores per mL. After 7 days the live and dead larvae were counted and the percent mortality was calculated. At the highest concentration tested without the fungus the percentage of inhibition was 2.43%, the extract associated with the fungus showed 97.75% inhibition, only the fungus showed 64.49%. In view of these results we can conclude that the extract associated with the fungus has its effect enhanced however, further testing will be carried out in the future.

Keywords Extract, *B. bassiana*, acaricidal

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