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IDENTIFICATION OF FUNGI PATHOGENIC FOR *PERIPLANETA AMERICANA* (BLATTODEA: BLATTIDAE) BY SEQUENCING THE REGION ITS1-5.8S-ITS2 AND EVALUATION OF A SCATTERING FORMULATION OF *BEAUVERIA BASSIANA*

[1,4]MARIAH VALENTE BAGGIO, [2]ANDRESSA DE SOUZA, [1]SÉRGIO TADEU DECARO JUNIOR, [3]MANOEL VICTOR FRANCO LEMOS, [1]MARCELO DA COSTA FERREIRA, [4]ANTONIO CARLOS MONTEIRO

[1]Departamento de Fitossanidade
[2]Departamento de Medicina Veterinária Preventiva
[3]Departamento de Biologia Aplicada à Agropecuária
[4]Departamento de Produção Vegetal - Faculdade de Ciências Agrárias e Veterinárias,
UNESP – Jaboticabal, SP, Brasil

Abstract *Periplaneta americana* is a vector of various diseases and its control is usually done with chemical pesticides. However, this insect can be controlled with the use of entomopathogenic fungal formulations. Therefore, it is necessary to identify these control agents and also characterize sprays used in different concentrations. The aim of this study was the identification of three isolates of pathogenic fungi to *Periplaneta americana* and to evaluate the kinetics of surface tension and contact angle of droplets formed from suspensions containing *Beauveria bassiana*. DNA sequences were obtained from isolates JAB 68, IBCB 35 and JAB 42 and isolated the ITS1-5.8S-ITS2 region. Treatments of the scattering analysis were: T1 - ultra pure water; T2 - solution 0.1% Tween 80 (TW), T3 - suspension 2 x 10^8 conidia/ml of IBCB 35 isolate of *Beauveria bassiana* (Bb), T4 - 2 x 10^7 con./ml of Bb, T5 - 3 x 10^6 con./ml of Bb. The sequencing of ITS1-5.8S-ITS2 region of JAB 68 and IBCB 35 isolates showed 100% similarity with *Metarhizium anisopliae* and *Beauveria bassiana* species, respectively. The third sequence, corresponding to JAB 42 isolate had 100% similarity with *Aspergillus westerdijkiae* and *Aspergillus ochraceus* species from GenBank database. Phenetic tree separated the isolates into three distinct groups, showing differences between species. The results of scattering analysis showed that lower concentrations of *Beauveria bassiana* conidia suspended with Tween 80 promote greater spreading of the formulation on the insect surface.