

## **PATHOGENICITY OF *METARHIZIUM ANISOPLIAE*, *BEAUVERIA BASSIANA* AND *ASPERGILLUS* SP. TO *PERIPLANETA AMERICANA* (BLATTODEA: BLATTIDAE) FEMALES**

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**Abstract** Entomopathogens have been used in many agricultural and veterinary programs of pest control. Studies with fungi have shown great potential for control of urban pests, such as cockroaches, but there are few studies on the subject. Thus, the aim of this study was to investigate the pathogenicity of entomopathogenic fungi to females of *Periplaneta americana*. The treatments were: T1 - no fungus application and T2 - solution of 0.1% Tween 80 (TW). For T3-T11 suspensions were made with TW: T3 -  $3 \times 10^8$  conidia/ml of E9 strain of *Metarhizium anisopliae* (Ma), T4 -  $3 \times 10^7$  conidia/ml of Ma, T5 -  $3 \times 10^6$  conidia/ml of Ma, T6 -  $3 \times 10^8$  conidia/ml of IBCB 35 strain of *Beauveria bassiana* (Bb), T7 -  $3 \times 10^7$  conidia/ml of Bb, T8 -  $3 \times 10^6$  conidia/ml of Bb, T9 -  $3 \times 10^8$  conidia/ml of JAB 42 strain of *Aspergillus* sp. (Asp), T10 -  $3 \times 10^7$  conidia/ml of Asp and T11 -  $3 \times 10^6$  conidia/ml of Asp. Females were sprayed with 100  $\mu$ l of the suspensions and kept at  $27 \pm 0.5^\circ\text{C}$  and 80% RH in the dark. Mortality and fungus extrusion rate were evaluated for 20 days. Data was analyzed using Scott Knott ( $p \leq 0.05$ ) and transformed to  $\sqrt{x} + 1$ . The highest mortality and extrusion rate (48%) occurred with T3. There was no significant difference in time of death (6 to 10 days). All fungi were pathogenic to *Periplaneta americana* females. T3 could be a tool for integrated pest management.