

Influence of conidial age on virulence of *Beauveria bassiana* and *Metarhizium anisopliae* against Third Instar Larvae of *Spodoptera litura*

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ABSTRACT

Bio assays were conducted with *Beauveria bassiana* (Balsamo) Vuillemin and *Metarhizium anisopliae* (Metchnikoff) Sorokin against third instar larvae of *Spodoptera litura*. Conidial concentrations of 10^4 to 10^9 and 5×10^7 conidia ml^{-1} were prepared from the cultures having 10, 15, 20, 25 and 35 days age to assess the LC_{50} and LT_{50} , respectively. The probit analysis of data showed an increase in LC_{50} and LT_{50} values with the increase in age of the conidia. Conidia cultured on Sabouraud's Dextrose Agar (SDA) medium at 25°C at the age of 10 days showed LC_{50} value of 12.50 and 17.52×10^5 conidia ml^{-1} with *B. Bassiana* and *M. anisopliae*, respectively. There was a sharp increase in LC_{50} values with 20, 25 and 35 day old cultures. The LT_{50} value of a 10 day old culture of *B. bassiana* and *M. anisopliae* were 113.09 and 119.31h, respectively at 5×10^7 conidia ml^{-1} as compared to 153.79 and 155.85 h, respectively with 35 day old cultures. From the present studies, it can be advocated that there was a reduction in mortality of host larvae to fungal infection beyond 35 days of age and the use of 10 or 15 day old cultures of fungi is advantageous.

Key words: *Beauveria bassiana*, *Metarhizium anisopliae* and *Spodoptera litura*