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Entomopathogenic effect of *Beauveria bassiana* and *Metarrhizium anisopliae* on *Tuta absoluta* larvae under laboratory and glasshouse conditions in Ethiopia

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Tomato leaf miner, *Tuta absoluta* (Meyrick) is one of the major pests that infest tomato plant in all agro-ecological regions of the world where it is present. Currently, the management strategies highly rely on chemical insecticides, which do not provide effective control and at the same time have environmental concern in addition to the residue left on the fruits. Hence, looking for alternative control measure is vital. Studies were conducted to determine the pathogenicity and virulence of three different concentrations of *Beauveria bassiana* and *Metarhizium anisopliae* against larvae of *T. absoluta* using the concentrations of 2.5×10^7, 2.5×10^8 and 2.5×10^9 conidia ml^{-1} under laboratory and glasshouse conditions. The experiments were carried out in the laboratory and glasshouse. Mortalities caused by B. bassiana isolate at the different concentrations ranged from 79.17% to 95.83% under laboratory and 73.0% to 84.04% under glasshouse, the highest mortality percentage being found at 2.5×10^9 conidia ml-1. The isolate of *M. anisopliae* caused the highest mortality also at the highest concentration. The lowest lethal time for B. bassiana and *M. anisopliae*, were achieved by the concentration 2.5×10^9 (5.01 days) and 2.5×10^8 (5.21 days), respectively. The isolates of *B. bassiana* and *M. anisopliae* at 2.5×10^9 conidia ml^{-1} are promising for use the integrated control of T. absoluta larvae.

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