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Efficacy of Agrobacterium Tumefaciens as a Possible Entomopathogenic Agent

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Abstract : The objective of the present study was to evaluate the possible role of Agrobacterium tumefaciens as a possible insect biocontrol agent. Pests selected for the present challenge were adult males of Periplaneta americana and last instar larvae of Pieris brassicae and Spodoptera litura. Different ranges of bacterial doses were selected and tested to score the mortalities of the insects after 24 hours, for the lethal dose estimation studies. Mode of application for the inoculation of the bacteria, was the microinjection technique. The evaluation of the possible entomopathogenic carrying attribute of bacterial Ti plasmid, led to the conclusion that the loss of plasmid was associated with the loss of virulence against target insects.

Keywords : agrobacterium tumefaciens, toxicity assessment, biopesticidal attribute, entomopathogenic agent
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