

### Research Note

## Record of *Beauveria bassiana* on tea mosquito bug, *Helopeltis antonii* Signoret in guava ecosystem

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**ABSTRACT:** The tea mosquito bug, *Helopeltis antonii* Signoret, is an economically important pest of guava in recent years causing significant reduction in yield and marketable fruits. An entomopathogen, *Beauveria bassiana*, was isolated from the adult bug infesting guava from KVK, IIHR, Hirehalli (Tumkur). This is the first report of *B. bassiana* infecting *H. antonii*. Further field studies on the efficacy of this pathogen against *H. antonii* on guava are suggested.

**KEY WORDS:** Tea mosquito bug, *Helopeltis antonii*, entomopathogen, *Beauveria bassiana*, new record

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Guava is cultivated in an area of 1,31,625 ha with a production of 15.01 lakh tons and productivity of 11.41 tons/ha. The tea mosquito bug, *Helopeltis antonii* Signoret (Hemiptera: Miridae) is gaining importance as a pest on guava in recent years. Its eggs are inserted in the midribs of young terminal leaves. The nymphs and adults desap all parts of the plant such as terminal shoots, young leaves, flowers and fruits that are just formed causing a maximum of 61.79% fruit loss (Patil and Naik, 2004a).

During a field survey at KVK farm of Indian Institute of Horticultural Research at Hirehalli, Tumkur, an adult insect dead due to pathogen infection was noticed on the plant. The pathogen was pure white and had covered most of the insect body except the head and legs (Fig. 1). The infected insect was brought to the laboratory and after ascertaining sporulation by microscopic examination, the infected pathogen was isolated and mass cultured on Potato Dextrose Agar. Pathogenesis proved to be positive indicating that the pathogen is infective to the insect. The fungal culture was identified as *Beauveria bassiana* (Balsamo) Vuillemin by National Centre of Fungal Taxonomy (NCFT), New Delhi.

*Beauveria bassiana* is identified as a potential biological control agent of *H. antonii* causing 100 per

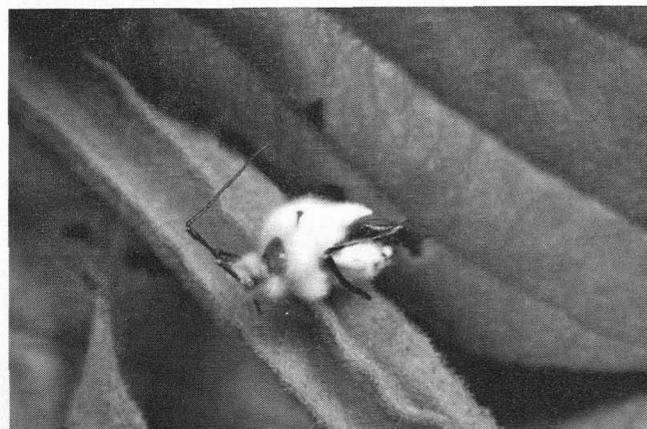


Fig. 1. *Helopeltis antonii* infected by *B. bassiana*

cent mortality in bio-assay studies (Patil and Naik, 2004b). *B. bassiana* is also reported as an effective biological control agent of tea mosquito bug, *H. theivora* Waterhouse (Hemiptera: Miridae) in Assam (Hazarika *et al.*, 2009). Further studies under field conditions are suggested to determine its biological control potential.

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