Mirid bug, *Nesidiocoris cruentatus* (Ballard) - an emerging pest on bottle gourd, *Lagenaria siceraria* (Molina) Standley

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Bottle gourd, *Lagenaria siceraria*, a crop of African origin is one of the most popular vegetables in India. The light green, blemish free fruits of medium size weighing approximately one kg with no damage are preferred by the consumers. Bottle gourd crop is infested by many insect pests that include mainly Fruit flies (*Bactocera cucurbitae* Coq.), aphids, semilooper, plum moth etc., leading to considerable loss to the growers.

In a bottle gourd crop (variety *Arka bahar*) raised during January-February 2015 at the Indian Institute of Horticultural Research, Bengaluru, India, small punctures on young leaves with irregular yellow borders were noticed. In addition, 3-4 day old fruits also showed punctures on their surface with sap oozing out. Upon drying the punctures appeared as light reddish brown spots and at fruit maturity the spots enlarged and gave an appearance similar to the damage caused by tea mosquito bug (*Helopeltis antoni*) on young guava fruits. Further, quite a few farmers visited our laboratory with such damage on bottle gourd fruits claimed that damaged fruits were rejected or fetched very low price at vegetable procurement outlets. On careful field observation we discovered mirid bugs feeding on the leaves and young fruits. The bug was identified as *Nesidiocoris cruentatus* (Ballard) (Heteroptera: Miridae). Bottle gourd has been reported as host plant of *N. cruentatus* from Andhra Pradesh and Karnataka (Yeshwanth, 2014) but there are no reports of its damage on bottle gourd. However, there are recorded reports of *Nesidiocoris caesar* as pest of bottle gourd (Chatterjee, 1983) and *N. tenuis* on shoots of bottle gourd (Shrivastava, 1991).

*Nesidiocoris cruentatus* largely colonizes growing flower buds and tender fruits with their stylets and suck sap. On an average, we could record 8 adults and 5 nymphs of the mirid per leaf. Two to three day old fruits recorded 8 nymphs and 4 adults per fruit. To confirm the damage caused by *N. cruentatus* on bottle gourd, a field experiment was carried out at the Indian Institute of Horticultural Research, Bangalore. Ten newly set bottle gourd fruits (2-3 day old) were bagged individually with muslin cloth (12 cm X 30 cm) so that no bugs could have access to the fruits. Five adults and five nymphs of *N. cruentatus* were released to each bagged fruit to observe the damage. Another set of ten fruits bagged with muslin cloth but devoid of *N. cruentatus* formed the control. After one week the bagged fruits were opened and observed for damage inflicted by mirids. All bagged fruits with the mirid bugs exhibited punctures and reddish brown stains from which sap oozed out because of the feeding injury, on the other hand the fruits in muslin cloth bags without mirid bugs showed no such symptoms. This confirmed that *N. cruentatus* inflict punctures on fruit surface and bring down the quality of the fruit that fetched low price in the market.

Under such circumstances it becomes imperative that management practices for the bug are put into action. However it is to be borne in mind that the management strategy should include environment friendly mechanisms that would rather deter mirids from feeding than destroying them at least in cases where they are beneficial to the crop as that of *N. tenuis* which is Zoophytophagous (Sánchez and Lacasa, 2008; Javier et al., 2009).
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