



Original Research Article

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Assessment of Certain Strategies to Manage Fruit Fly *Bactrocera cucurbitae* (Coquillett) in Bitter Gourd of Tripura

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ABSTRACT

Field experiment on the performance of different management strategies against fruit fly, *Bactrocera cucurbitae* (Coquillett) infesting bitter gourd was carried out during *kharif* 2017 and 2018 at farmers' field. The results revealed that significantly lowest mean number of ovipositional punctures (1.72 and 1.98/fruit), lowest mean number of maggots (10.00 and 10.93/fruit), lowest mean percent of fruit infestation (13.92 and 16.90 %) and higher fruit yield (15.73 and 16.59 t/ha.) as well as the highest cost-benefit ratio (1: 2.31 and 1: 2.44) as compared to the other treatments was recorded in the treatment with the pheromone traps @ 25/ha + gur based poison bait trap (50ml Malathion 50 EC + 200g gur + 2 litre water) during both the year.

Keywords

Fruit fly,
Bactrocera,
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Introduction

Cucurbits, a common name given to a number of vegetable crops belonging to botanical family cucurbitaceae which mostly possess trailing habit, are extensively grown all over the tropical and sub-tropical countries and include the largest number of summer and rainy season vegetables (Bharadiya and Bhut, 2017). Tephritid fruit flies, *Bactrocera* spp. are the most serious and destructive insect pests infesting all cucurbit vegetables worldwide except in Arctic and Antarctic regions (Kapoor *et al.*, 1980). The extent of

loss inflicted by these dipteran flies is varying from 30 to 100% depending upon cucurbit species and environmental conditions (Shooker *et al.*, 2006).

Their attack not only reduce yield but also affect fruit quality hence farming enterprises rendered unprofitable. In Himachal Pradesh, *Bactrocera tau* (Walker), *B. cucurbitae* (Coquillett), *B. scutellaris* (Bezzi) have been reported as the predominant fruit fly species which cause heavy losses in cucurbit and tomato crops in low and mid hill areas (Prabhakar *et al.*, 2007; Singh *et al.*, 2013).

The melon fruit fly, *Bactrocera cucurbitae*