RESEARCH ARTICLE

SEASONAL INCIDENCE AND EXTENT OF DAMAGE BY CUCURBIT FRUIT FLY, *BACTROCERA CUCURBITAE* (COQ.) ON SPINE GOURD (*MOMORDICA DIOICA* ROXB.)

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Abstract: Spine gourd *Momordica dioica* (Roxb.) is an important potential cucurbitaceous crop, its fruit gets severely affected by cucurbit fruit fly (*Bactrocera cucurbitae* Coq.). It population of 0.2 adult/plant was first observed during first week of August which remained till third week of October. The fruit fly adult population was increased gradually afterwards to reach highest number with 3.0 adult/plant in second week of September, whereas the maximum and minimum temperature was observed at 31.1^{0}C and 23.0^{0}C hand rainfall 8.4mm, while morning and evening relative humidity was 95% and 74%, respectively. However, after attaining peak, the population reduced and minimum level of none adult/plant was recorded in last week of October (43th SMW). The fruit infestation percentage of spine gourd was first observed on fruit number and weight basis at 19.61 and 19.28 per cent respectively, whereas the larval density of 2.57 maggot/fruit was observed during the first picking of fruits (July, 31). Thereafter, the fruit infestation percentage showed a gradual increasing trend and reach peak infestation with 43.23 and 43.31 per cent respectively, when the maggot density of 6.85 maggot/fruit was observed during fifth picking of fruits (September, 30). The infestation percentage was decreased by 32.58 and 35.99 per cent respectively, when the maggot density was also decreased in the ranges 4.58 maggot/plant in last picking of fruits (October, 15). Hence, the maximum plant protection measures should be applied in the month of September for the reduction of pest population and damage.

Keywords: Cucurbit fruit fly, *Bactrocera cucurbitae*, Gourd, *Momordica dioica*, Seasonal incidence

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