



Incidence Pest of Fruit Fly on F₃ Progenies Studies in Ridge Gourd (*Luffa Acutangula* L. Ruxb.)

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INTRODUCTION

The ridge gourd (*Luffa acutangula* L. Ruxb.) is a popular cucurbitaceous vegetable that grown in India in the spring and summer. It is grown commercially and in kitchen gardens in nations like India, Indonesia, Malaysia, Myanmar, the Philippines, Sri Lanka, and Taiwan. It is one of the cheapest vegetables to produce. The crop is an annual, monoecious, cross-pollinating vine with a long taproot system, simple, sharply angled, five-lobed leaves, and dark green fruits with black seeds embedded in spongy flesh and white pulp. (Tasnim *et al.*, 2025). *B. cucurbitae* can result in losses of 30% to 100%, depending on the cucurbit vegetable and season (Dhillon *et al.*, 2005). Pheromone traps are a straightforward and efficient method of monitoring fruit fly population movements, and they have been successfully used all over the world (Alyokhin *et al.*, 2000). Two popular male attractants used to collect *Bactrocera* spp. fruit flies are methyl eugenol (ME) and cue lure (CUE). Most species appear to be attracted to either lure, though some are drawn to both (Dominiak *et al.*, 2011).

Among five parents, the incidence of fruit fly was found in almost all the parents. The high incidence of fruit fly was recorded in parent P₅ (NRG-9) (23.27 %), whereas the least incidence of fruit fly was recorded in parent

P₁ (Arka Sumit) (15.63 %) and F₃ progenies (9.36 %) of cross-I P₁ x P₂. Cross-II P₁ x P₃ F₃ progenies (10.89 %). In cross-III P₄ x P₅ F₃ progenies (8.02 %). The percent incidence was worked out by using the formula

$$\text{Percent incidence} = \frac{\text{Total no. of infested fruits}}{\text{Total no. of healthy fruits}} \times 100$$

CONCLUSION

Among five parents, the incidence of fruit fly was found in almost all the parents. The high incidence of fruit fly was recorded in parent P₅ (NRG-9) (23.27 %), whereas the least incidence of fruit fly was recorded in parent P₁ (Arka Sumit) (15.63 %) and F₃ progenies (9.36 %) of cross-I P₁ x P₂. Cross-II P₁ x P₃ F₃ progenies (10.89 %). In cross-III P₄ x P₅ F₃ progenies (8.02 %). Parents and three crosses were found to be resistant to fruit flies, a suitable forecasting and warning model could be developed based on the quantity of fruit flies caught in each trap and their relationship to meteorological variables agricultural expenses by reducing crop loss and enhancing insect control.

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