

PRELIMINARY INVESTIGATIONS ON MASS REARING OF  
*Trichogramma species*, AN EGG PARASITOID OF LEPIDOPTERAN  
VEGETABLE PESTS

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A field survey was conducted to find out the locally occurring *Trichogramma spp.*, an egg parasitoid that parasitize on *Helicoverpa armigera*, *Plutella xylostella* and *Maruca testulalis* and laboratory experiments were conducted to study the life cycle of the grain moth (*Sitotroga cerealella*) at Horticulture Crop Research and Development Institute, Gannoruwa.

Potted plants with fresh *Plutella xylostella* (Diamond back moth-DBM) eggs were kept in organic cabbage field at HORDI and also farmers' field at Bandarapola, Matale to find out the *Trichogramma spp.* that parasitize on DBM eggs. Five media i.e., broken paddy, broken rice, whole grain paddy, whole grain rice & wheat flour were tested with grain moth larvae. 1<sup>st</sup> instars larvae were introduced to the media and the rate of adult emergence, duration taken to adult emergence and fecundity of the emerged female adults were investigated. The colour preference for egg laying by *S. cerealella* was also investigated using 3 colors viz. Green, white and pink that can be used to prepare "Tricho-cards".

Pigeon pea field (Variety; Prasad) with staggered planting was maintained under standard agronomic practices and free of insecticides was allowed to infest by the pests; *Helicoverpa armigera* and *Maruca testulalis* to collect and rear under laboratory conditions to study the emergence of parasitoids.

There was no adult emergence from the *H.armigera* and *M.testulalis* eggs collected from the field. So the *Trichogramma* population is very low in the selected area. Results indicated that broken paddy was the most suitable medium for the larval development of the grain moth. And also green and white colour cards were preferred by *S. cerealella* for egg laying, than pink colour.

*Key words:* *Trichogramma* species, Mass rearing technique, *S. cerealella*, *H .armigera*, *P. xylostella*, *M. testulalis*