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Study of Feeding and Life Stages of *Clitostethus arcuatus* (Col.: Coccinellidae) on Green house Whitefly, *Trialeurodes vaporariorum* (Hom.: Aleyrodidae)

MARYAM YAZDANI, MEHDI ZARABI

Plant Protection Dept., Abureihan Campus of Agriculture, College of Plant and Animal Sciences, University of Tehran, Iran mzarabi@ut.ac.ir

Introduction: *Clitostethus arcuatus* recorded as green house whitefly predator. It is widely distributed in Mediterranean, Russia, North Africa and Iran. This research was carried out to study its feeding and life cycle on *T. vaporariorum*.

Methods: Ten pair of newly emerged ladybirds (in 8 replicate) were reared in controlled conditions ($25\pm 2^{\circ}\text{C}$, $65\pm 5\%$ RH and L-D: 16-8) on host's egg mass for studying predator's life stages. Feeding was evaluated by predator's consumption on different stages of pest from colonies of prey on leaves of tobacco. Related data were collected every 10 days during 2 months.

Results: Results showed that, mean of longevity of egg, 1-4th larvae, pupa, female and male were 2.75 ± 0.1 , 3 ± 0.1 , 4.75 ± 0.96 , 7.25 ± 0.5 , 9.5 ± 1 , 66.4 ± 8.2 and 31.2 ± 3.9 days respectively. Female laid an average of 4 ± 0.22 eggs daily. In the other hand, it showed a significant difference between female and male's feeding (with the mean of 54 ± 1.6 and 21 ± 1.6 eggs of prey/day respectively). Each pair consumed an average of 106 ± 10.5 eggs, 41 ± 7.8 pupa and $14\pm 3/82$ adults of prey daily. However predator preferred to feed on pupa (or 4th nymphal stage) than the nymph's stages (1-3). Predatory behavior showed that it sucked prey body's sap after catching it and never eats prey body completely. This behavior causes a high decreasing on pest's population size, especially in higher densities.

Conclusions: It seems that this ladybird is a powerful predator for control this serious pest of glass houses crops especially in its early developmental stage (egg).

Poster Submission
Section 16
Symposia 16.3