



***Nesidiocoris tenuis* Reuter (Hemiptera: Miridae) and *Cycloneda sanguinea limbifer* (Casey) (Coleoptera: Coccinellidae): Behaviour and predation activities on *Myzus persicae* Zulzer (Hemiptera: Aphididae)**

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The reduction of pest population depends on several factors and the behavior and predation capacity of the natural enemy play an important role. The predatory bug *Nesidiocoris tenuis* and the ladybeetle *Cycloneda limbifer sanguinea* are important predator species of several insects as aphids, thrips and whiteflies in many crops. The aim of this work was to evaluate the predation and behavior activities of these natural enemies on the aphid *Myzus persicae*, and also their effect on this prey dispersal. The experimental boxes were maintained in an acclimatized room at  $23.7 \pm 1.8^\circ\text{C}$  and RH  $62.6 \pm 5\%$ . The number of aphids on the infested and non-infested plants, and the location of the predators were recorded on the predation test. The behaviour activities of the predators as moving, searching, resting, encountering aphids, feeding, encountering aphid exuviae, and cleaning, and their duration were recorded. The ladybeetle was more voracious than the bug on *M. persicae*, and coccinellids consumed higher number of *M. persicae*. The ladybeetle lead to more aphids' dispersion when in contact with them than bug, however, the highest aphid dispersion occurred when a higher predator number was used from both species. The time spent in moving, encountering, encountering the aphid exuviae and feeding activities of both predators did not show significant differences, but the time spent in feeding by bug was higher than by Coccinellid. Bugs spend longer time for resting than beetles. The coccinellids spent a longer time in searching preys than the bugs, but the time needed by them for cleaning its mouthparts with its front legs was longer than the time needed by bugs for cleaning their whole body. The results revealed an antipredator behaviour of *M. persicae* in the predator's presence and a higher dispersion in the presence of *C. limbifer sanguinea* compared to the presence of *N. tenuis*.

**Key words:** Biological control, pepper, aphids, predatory bugs, lady beetles.

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