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## **P54- Effect of the ground cover management on *Cacopsylla bidens* ('ulc, 1907) populations in pear orchards**

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*Cacopsylla bidens* (Šulc, 1907), is one of the key pests of pear, belonging to the superfamily Psylloidea. Its management has been based on broad-spectrum insecticides, which causes the appearance of resistance and the disappearance of the population of the natural controllers. The need to reduce the use of insecticides is growing. This fact makes it necessary to find alternative strategies to control this pest, and the biological control can be a sustainable solution in the long term. The aim of this work was to evaluate the effect of the ground cover management on psyllid populations and its natural enemies and register the natural enemies' families present in Uruguay. Sampling was conducted in Southern Uruguay, between 2013-2015. Two treatments were evaluated: regular cut of spontaneous vegetation of interrow with herbicide in the row, and uncut vegetation of the interrow with no herbicide. To determine the presence of beneficial arthropods, a garden vacuum cleaner was used on a weekly basis. Psylla catches were significantly lower in the uncut treatment compared to the other treatment. Natural enemies, on the contrary, were higher in the uncut treatment. The pool of natural enemies found was present throughout the year and was composed of predators belonging to the families Anthocoridae, Miridae, Chrysopidae, Coccinellidae, Syrphidae and the order Araneae, as well as parasitoids belonging to the family Encyrtidae. These results allow us to conclude that the treatment without periodical cutting of the ground cover generates a condition beneficial for the increase of populations of natural enemies, probably due to better feeding and multiplication conditions. This beneficial fauna seems to control psyllid populations providing an alternative for management of pear psyllid, reducing the use of insecticides in the orchards.

Keywords: Psyllidae, entomophagos, parasitoids, William's pear, conservational biological control, Integrated pest management