

**LABORATORY ASSESSMENT OF PEA-WHEAT PLANT ASSOCIATION COUPLED WITH POTENTIAL APHID INFESTATION ON *SITOBION AVENAE* BEHAVIOUR**

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Semiochemicals are involved in multitrophic interactions, affecting the behaviours of both the herbivores and the beneficial insects. Several volatile molecules are emitted by infested plants but also from the herbivores. In most of the study, volatile organic compounds of herbivore-plant associations were assessed on the entomophagous beneficials. One way to promote biological control in crop pests is the management of fields by planting intercropping. In the proposed association, pea and wheat intercrops are proposed to reduce the pest abundance, including wheat aphids. In this work, a laboratory assessment of the association of pea and wheat was tested in behavioural test. Not only healthy but also aphid infested plants were tested in several combinations. Using a two way olfactometer, apterae and alate *Sitobion avenae* were observed when presenting different kinds of dual choices. Healthy plants were preferred by *S. avenae* to empty control. Also, the presence of conspecific on wheat proposed plant did not provide any more attraction to tested alate awheat aphids. The presence of *Acyrtosiphon pisum* infested pea induce a significant repulsive effect on *S. avenae*. These results were discussed to promote intercropping and aphid control in further field experiments including s the effect on beneficials in a push-pull approach by attracting the beneficial and repelling aphid pests.