

**EFFECTS OF ISOTHIOCYANATES ON THE GLUTATHIONE
S-TRANSFERASE ACTIVITY FROM *ADALIA BIPUNCTATA*
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Insects are sensitive to biochemical aspects of their environment, chiefly to their host plants. Glucosinolates and their volatile metabolites (isothiocyanates, ITC) have been implicated for pests infestation on Brassicaceae plants (David and Garnier, 1966). Moreover, the cultivation of low glucosides rape varieties has not lead to differences in crucifer pests attack levels (Lamb, 1989). Derivative compounds from glucosinolates are powerful stimulants for Brassicaceae specialist aphids but they could be tolerated by the polyphagous *Myzus persicae* Sulzer (Nault and Stayer, 1972). Induction of glutathione S-transferase (GST) has been observed in *M. persicae* infested *Brassica* species (Egaas and al, 1991). These enzymes induction is considered as a response to the presence of several inducers/inhibitors, changing the insects susceptibility to insecticides (Yu, 1982). Ladybirds are in contact with these ITC compounds when they search or they consume aphids on Brassicaceae species plants. In this study, the evolution of GST induction in relation to increasing concentrations of some ITC in *Adalia bipunctata* L. were reported. Mortality curves were also established for glucosinolates metabolites or ITC compounds. Effects of glucosinolates/isothiocyanates from plants and enzymatic responses of insects will be discussed.

References

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