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**Effects of Methoxyfenozide, a Molting Hormone Agonist,  
on Fecundity and Fertility of *Culex pipiens* L (Diptera:  
Culicidae)**

Chemical insecticides have represented the most widely method used to control mosquito-borne vectors. However, despite their efficiency, resistance of vector populations against them poses a threat to public health. Their negative effects on non-target organisms, have led to search other alternative methods, more simple and sustainable for mosquito control. The current study aimed to evaluate the effects of an insect growth disrupter (IGD), ecdysone agonist (methoxyfenozide: RH-2485), against *Culex pipiens* L. (Diptera: Culicidae) under laboratory conditions. Lethal concentrations (LC<sub>50</sub> = 24.54 µg/L and LC<sub>90</sub> = 70.79 µg/L) previously determined, were tested on adult female fertility and fecundity after tarsal contact before mating. Methoxyfenozide showed an oviposition inhibition against *Cx. pipiens*. Eclosion rate (fertility) was significantly higher in control group than under treatment with methoxyfenozide. Furthermore, changes in the egg shell morphology were observed. Survey data clearly demonstrated that methoxyfenozide have significant sterilizing activity against medically important vector while minimizing ecotoxicological risks in mosquitoes management.