

Compensation of kinoprene effect on reproduction of *Culex pipiens* by methoxyfenozide, an ecdysone agonist

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ABSTRACT

In the present study, sublethal effects of two IGDs: a juvenile hormone analog kinoprene (LC₅₀) used alone or in combination with an ecdysone agonist; methoxyfenozide (LC₂₀) against *Culex pipiens* L. (Diptera: Culicidae) have been investigated. The success of emergence, sex ratio and fecundity of surviving adults from treated newly exuviated fourth instar larvae were discussed. The different morphological aberrations induced by treatments were also mentioned. A significant reduction of the success of emergence was observed only with kinoprene. The sex ratio was also affected by kinoprene and the females seemed more sensitive to treatments than the males. The fecundity of *Cx. pipiens* was also reduced by kinoprene. Interestingly, methoxyfenozide seemed to compensate the depressive effects induced by kinoprene.

Key words : Fecundity, insect growth disruptors, kinoprene, methoxyfenozide, mosquitoes, sex ratio.

INTRODUCTION

Their relative target specificity, environmentally friendly profile and safety have been reported (Su