

Article title

Action of some acaricides against *Tetranychus cucurbitacearum* Sayed and their side effects against the associated predator, *Stethorus gilvifrons* Mulsant

Abstract

Three compounds are recommended as acaricides (Biofly, Abamectin and Ortus) for controlling a sucking- piercing mite *Tetranychus cucurbitacearum* (Sayed) by the determination of the median lethal concentration (LC₅₀). The newly emerged adults of the predator *Stethorus gilvifrons* Mulsant which associated with this mite exposed to bean leaves treated with such acaricides at LC₅₀ that previously determined for *T. cucurbitacearum*. The estimated LC₅₀ values for the mite were 9.2 ppm; 0.54 ppm and 9.53×10^7 conidia/ ml for Ortus, Abamectin and Biofly, respectively. While the slope values were 1.53; 2.11 and 1.97 for three acaricides. Results showed that, Abamectin, Biofly and Ortus have effect on the different biological aspects of the predator fed on the mite such as pre- oviposition, oviposition, post-oviposition, incubation periods and female fecundity. The longest period of oviposition and female longevity (22.9 and 32.8 days) accompanied with the highest fecundity (64.00 eggs) and high prey consumption (554.80 prey / couple) were recorded with Biofly treatment. These values reduced significantly in general with using Ortus and Abamectin, respectively. Also, the obtained results showed that the fourth larval instar was more highly voracious than the other three larval instars.