

Efficacy of Biomite® and GC-Mite® on *Oligonychus Sacchari* and its predator *Stethorus gilvifrons* on sugarcane; Preliminary results

Abstract

Field trials were conducted at Salman Farsi agro-industry unit in Ahwaz, Iran in 2012 with sugarcane cv. CP48-103 and CP57-614 to elicit the effect of acaricides on the control of sugarcane yellow mite *Oligonychus sacchari* and the impact of these acaricides on predatory beetle *Stethorus gilvifrons*. Acaricides treatments were Biomite® (1, 1.5 or 2 liter/ha) and GC-Mite® (0.3, 0.5 or 1 liter/ha). Each treatment was replicated three times for each commercial variety and control. The control plots were received neither acaricides nor water. The number of mites were recorded after 0 (before spraying), 3, 7, 15 and 30 days after application and predatory beetle were recorded after 10, 20, 30 and 40 days after treatments. The results revealed that there were significant difference between acaricides application and control. All treatments had significant effects after 3 days of application. Biomite® and GC-Mite® at highest dose rate were the most effective treatments after 30 days, but the acaricidal efficacy of both acaricides were reduced and this phenomenon was attributed to high temperature during the tests. There was significant difference between acaricides and control on predatory beetle at 3, 7 days after application. The number of beetles was increased with extended time for all applied dose rates. Sugar content was significantly higher in CP57-614 treated with 2 l/ha Biomite® or 1 l/ha GC-Mite® than the untreated control. .

Keywords: sugarcane yellow mite, *Stethorus gilvifrons*, acaricides, economic injury level