Effect of Biorational Insecticides to Predatory Coccinellids and Spiders in Maize Ecosystem

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ABSTRACT

Field experiments were conducted at Agricultural Research station, Darsi during *Rabi* 2014-15 and *Rabi* 2015-16 to evaluate the effect of biorational insecticides on predatory coccinellids and spiders in maize ecosystem. Among the botanical pesticides, entomogenous microbes, insect growth regulators and natural insecticides, and untreated control recorded significantly highest numbers of predatory beetles, *Coccinella transversalis* F., *Cheilomenus sexmaculata* F.and spiders (1.41, 2.47 and 2.09 / plant) which is on par with *B. bassiana* (1.31, 2.17 and 1.94 / plant), *B. thuringieinsis* (1.29, 2.26 and 1.93 / plant), azadirachtin 10000 ppm (1.29, 2.31 and 1.92 per plant) and *M. anisopliae* (1.29, 2.24 and 1.88/ plant). Safety to predatory beetles *viz.*, *C. transversalis* and *C. sexmaculata* and predatory spiders was also exhibited by chlorantraniliprole 18.5% SC (0.98, 1.99 and 1.62 /plant), spinosad 45% SC (1.08, 1.87 and 1.54 /plant) and chlorantraniliprole 0.4% GR (0.87, 1.82 and 1.61 /plant), respectively which were on par with each other. Predatory activity was least in carbofuran 3G followed by monocrotophos 36% SL and novaluron 10% EC.

Keywords: *Biorational insecticides, Cheilomenus sexmaculata, Coccinella transversalis, Maize, Spiders.*