

# Studies on the Efficacy of Certain New Insecticides on the Major Insect Pests and their Effect on Natural Predators in Pigeon Pea Ecosystem\*

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## ABSTRACT

Indoxacarb 0.0145% and thiodicarb 0.075% were highly effective against all the pod borers of pigeonpea. The chemicals spinosad 0.0225% and novaluron 0.01% though not effective by one day after treatment showed their efficacy by the fifth day and performed better. Profenofos registered a moderate efficacy against all the pests of pigeonpea while endosulfan recorded a moderate efficacy on *M. vitrata* and *M. obtusa* but failed in checking the population of *H. armigera*. HaNPV being specific registered a moderate efficacy against *H. armigera* but showed no effect on *M. vitrata* and *M. obtusa*. Azadirachtin and *B. t* were the less effective chemicals for all the pests under study. Regarding the toxicity of treatments against natural enemies, treatments HaNPV, B.t, azadirachtin, novaluron proved to be safe to coccinellids and spiders by recording less than 20 per cent reduction over untreated control. Spinosad and endosulfan were found relatively safe to natural enemies. Indoxacarb and thiodicarb were moderately toxic while profenofos was toxic to the coccinellids and spiders in pigeonpea ecosystem.

**Key words :** *H. armigera*, Pigeon Pea, *M. obtusa*, *M. vitrata*.