

**IMPACT OF INSECTICIDES ON  
INSECT PEST AND NATURAL ENEMIES  
ON COWPEA**



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**2004**

## ABSTRACT

This study was carried out in the Agronomy farm of the Eastern University, Batticaloa, to study the impact of insecticide on insect pests and their natural enemies (predators and parasitoids), in Cowpea fields treated with and without insecticides, during the period of from October 2004 to November 2004. This experiment constituted four plot for each treatment such as with and without insecticides. Size of each plot was 4 m<sup>2</sup> and vegetable Cowpea variety BS<sub>1</sub> was used for the Dimethoate 400g/EC was applied against Aphids attacked.

Admire SI 200, reduced the insect pest such as Beanfly (*Ophiomyia phaseoli*) and Leafbeetle (*Ootheca* spp.) than untreated plots. But the results showed that number of insect pest namely Beanfly and Leafbeetle did not vary significantly ( $P > 0.05$ ) between the treated and untreated plots. Dimethoate 400g/EC has not significantly affected the number of Aphids (*Aphis craccivora* Koch) and Podborer (*Maruca testulalis* Geyer) between treated and untreated plots. However Podsucking bug (*Riptortus* spp) , Cowbug (*Oxyrachis tarandus* F) were significantly reduced ( $P < 0.05$ ) between the treated and untreated plots.

Application of insecticides significantly ( $P < 0.05$ ) reduced by the number of all natural enemies except Spider. The natural enemies were affected insecticides such as Ladybird beetle, *Orius* spp Ants, Dragonflies, Damselflies and Wasps.

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