

**UNIVERSITI TEKNOLOGI MARA**

**FIELD EVALUATION OF  
NEONICOTINOID INSECTICIDES  
AGAINST LEAFHOPPER  
ON BRINJAL, CHILLI  
AND LONG BEAN**

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## AUTHOR'S DECLARATION

I declare that the work in this thesis was carried out in accordance with the regulations of Universiti Teknologi MARA. It is original and is the results of my own work, unless otherwise indicated or acknowledged as referenced work. This thesis has not been submitted to any other academic institution or non-academic institution for any degree or qualification.

I, hereby, acknowledge that I have been supplied with the Academic Rules and Regulations for Post Graduate, Universiti Teknologi MARA, regulating the conduct of my study and research.

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## **ABSTRACT**

A field evaluation of neonicotinoid insecticides; Imidacloprid, Acetamiprid and Dinotefuran using recommended concentration against leafhopper, was studied. Insecticide application were conducted against leafhopper infesting brinjal, chilli and long bean for two cropping period under field conditions in UiTM Melaka, Jasin campus. According to percentage reduction over control, Imidacloprid was found to be the most effective treatment in reducing the pest population on brinjal. As for chilli and long bean test crop, Acetamiprid was the most effective treatment. All three treatments showed no significant different in residuality effect against leafhopper on all three tested crop as they last up to 14 DAA against leafhopper population. Imidacloprid and Acetamiprid showed the highest percentage increased yield over control for brinjal and long bean respectively. Imidacloprid, Acetamiprid and Dinotefuran were effective in giving high yield and protecting the crop against leafhopper when compared with untreated (water). From this study, the use of insecticides using its recommended dose is proven to be effective in controlling infestation of leafhopper on crop. Therefore farmer should be wise in using insecticides which could help them in managing the cost of crop protection, environment as well as their own health. In the end farmer will have many option in choosing any of the neonicotinoid insecticides tested in this study.

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