

Assessment of the impact of application of two insecticides on rice insect pests and its natural enemies in rice field

A study was carried out in the fields of Agronomy farm of the Eastern University to assess the insect pests and their natural enemies (predators and parasitoids) in rice field treated and untreated with insecticides, from August to October 2001. For this experiment, four plots for each treatment such as with and without insecticides were allocated. Size of the plot was 9 m². Paddy variety BG 357 was used for the study. While Carbofuran 3% GR and Tebufenozide were applied against yellow stem borer and leaffolder respectively.

Carbofuran 3% GR substantially reduced such insect pests as rice whorl maggot (*Hydrellia phillippina* Ferino), brown planthopper (*Nilaparvata lugens* Stal). The results showed that number of insect pests, namely brown plant hopper and rice whorl maggot, were significantly higher ($p < 0.01$) in control plots than in treated plots. However, there was no significant difference in the number of yellow stem borer moths recorded on control and treated plots. The number of leaffolder moths was significantly reduced in plot treated with Tebufenozide.

Application of insecticides significantly reduced ($p < 0.01$) the number of natural enemies namely dragonflies, damselflies, spiders and ground beetles while no significant damage caused to lady bird beetle and wasps.