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TOXICOLOGICAL AND BIOLOGICAL STUDIES ON BOLLWORMS

Laboratory studies were carried out in the laboratory of Plant protection research institute (Sharkia Branch) at Zagazig and Faculty of Agriculture Benha University and Field experiments were conducted in Sharkia region during 2002 and 2003 Cotton Seasons. Laboratory studies were carried out to evaluate the acute and latent effect of 3 conventional insecticides (esfenvalerate, thiodicarb and chlorpyrifos) and 2 IGR's (hexaflumuron and chlorfluazuron) against pink and spiny bollworms after treated eggs, larvae and adults. Results showed that insecticides were more toxic than IGR's and all of them induced biological effects on the different stages of the two pests.

Field experiment was to evaluate these compounds against pink bollworm infested cotton fields using three different sprayers, [Knapsack motor sprayer (solo) with micronor, Knapsack motor sprayer (solo) and conventional motor sprayer]. Result show insignificant difference between tested sprayers, wherever the conventional insecticides were more potent than IGR's.

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