

CONTROL OF PECTINOPHORA GOSSYPIELLA (SAUND.) AND EARIAS INSULANA (BOISD.) IN COTTON FIELDS BY RELEASING TRICHOGRAMMA EVANESCENS WESTWOOD

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Abstract

Field study was conducted at Kafr El- Sheikh Governorate, Egypt, in 2003 and 2004 cotton seasons to evaluate a recommended biological control program against pink bollworm, *Pectinophora gossypiella* (Saund.) and spiny bollworms *Earias insulana* (Boisd.). This program included the local egg parasitoid *T. evanescens* and recommended to use formulations of *Bacillus thuringiensis* and some insect growth regulators if this parasitoid fails to maintain boll infestation below 3% (economic level of infested bolls in Egypt). The total area for *T. evanescens* release was 200 and 784.25 feddan at 2003 and 2004 cotton seasons, respectively. While another area was selected as control. The release area was separated by 5 feddan at least from the control area to avoid dispersal of released *Trichogramma* into control plots. Eight and six *Trichogramma* releases were applied at the two seasons, respectively. While, the recommended bollworms insecticide control program was applied at the control units. This program used 4 chemical insecticide (organophosphoric and pyrethroid compounds) applications through the two seasons. The obtained results indicated that *T. evanescens* succeeded to maintain boll infestation below the economic level in 79 and 82% of the dissected boll samples in the two seasons, respectively. As for the control, the four applications with chemical insecticides were able to maintain this boll infestation below the economic level in 83 and 74% of the samples in the two seasons, respectively. Statistically there is no significant difference at the two seasons between the infestation in *Trichogramma* and insecticide treatments.