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التوثيق الالكتروني والميكروفيلم

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بالرسالة صفحات

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SOME NEW APPROACHES FOR REDUCING THE INFESTATION OF COTTON BOLLWORMS

BY

Adel Abdel-Salam Mabrouk Saad

A thesis submitted in partial fulfillment of the requirements governing the award of the degree of

MASTER OF AGRICULTURAL SCIENCES
(PESTICIDES)
Department of Plant Protection

From

Alexandria University

2002

Alexandria University
Faculty of Agric. (Saba-Bacha)

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ACKNOWLEDGEMENT

The participation and contribution of individuals and institution towards the completion of this thesis is gratefully acknowledged.

Certainly, first and foremost, I am particularly grateful and indebted to my promoter, **Prof. Dr. Abdel-Fattah Sayed A. Saad**, Professor of Pesticide Chemistry and Toxicology, Faculty of Agriculture, Saba Basha, Alexandria University, for his keen interest in my study. His wise guidance, assistance and constant encouragement throughout the research and his indispensable efforts in critically revising the results and manuscript have made this thesis possible.

I am grateful to **Professor Dr. Sayed Hassan M. Tayeb,** Prof. of Pesticide Chemistry and Toxicology, Faculty of Agriculture, Saba Basha, Alexandria University for his encouragement and valuable criticism during these studies.

I am also thankful to the Head Researchers, **Dr. Hamdy Amin Awad**, the Manager of the Regional Research Station, Alexandria, for his valuable help and assistance in planning the field experiments and providing the materials and the cotton cultivars I needed, also his valuable criticism during these studies.

My thanks are extended to all my friends and all the member of Plant Protection Department, Faculty of Agriculture, Saba-Basha, Alex. University.

My deep thanks are also due to the Head of Bollworm Research Dept., The Director of the Plant Protection Research Institute and the Head Researcher Dr. Mohammed Saaed El-Shahaat, the Manager of the Plant protection Research Station for their interest and assistance.

I am also thankful to all colleagues who helped me in these studies, especially Dr. Khalifa Ahmed Abdel-Rahman, Researcher in Plant protection Research Station, Alexandria and Dr. Ahmed Mahmoud Mohamed Ebieda, Chief Research in Sugar Crops Inst. Research. for their assistance.

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INTRODUCTION

Cotton, the world's most important fiber crop, stands foremost among Egyptian crops. It is heavily attacked by the cotton bollworms, *Pectinophora gossypiella* (Saund.) (PBW) and *Earias insulana* (Boisd.) (SPW), causing significant yield reduction. During the last few decades the use of chemical insecticides has become the predominant tools for controlling cotton pests in Egypt. The periodical spray round program of the pink bollworm infestation involve 4-5 pesticide applications. During 1970s, there has been a rising concern over the accumulation of chemical insecticides in the environment with resulting adverse effect on beneficial insects, wild life populations, developing insects'resistance and human health.

The losses in cotton yield caused by insects to the world wide cotton crop have been estimated to an average of 16% (Ridgway, 1984) of the potential crop. The cost of control should also be included in the estimates of losses caused by insects. In addition to losses in yield and the costs of insect control, substantial indirect losses occur as a result of insecticide resistance.

The pink bollworm (PBW), *Pectinophora gossypiella* (Saund.) is a key pest of cotton in many areas of the world. It is capable of causing tremendous economic losses in cotton. *P. gossypiella* could cause up to 50% loss of crop (Agrawal *et al.*, 1976). The losses caused by the pink