



شبكة المعلومات الجامعية

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ





شبكة المعلومات الجامعية



شبكة المعلومات الجامعية

التوثيق الالكتروني والميكرو فيلم

جامعة عين شمس

التوثيق الالكتروني والميكرو فيلم

قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها
علي هذه الأفلام قد اعدت دون أية تغيرات



يجب أن

تحفظ هذه الأفلام بعيداً عن الغبار

في درجة حرارة من 15 – 20 مئوية ورطوبة نسبية من 20-40 %

To be kept away from dust in dry cool place of
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بعض الوثائق الأصلية تالفة



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بالرسالة صفحات
لم ترد بالأصل

THE EFFECT OF SOME NATURAL COMPOUNDS ON THE BLACK CUTWORM

Agrotis ipsilon (Hufnagel)
(Lepidoptera : Noctuidae)

A THESIS

Submitted to the Faculty of Science

Cairo University

In

Fulfillment For The Degree of Doctor of
Philosophy (Ph.D.)

in

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By

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FACULTY OF SCIENCE
CAIRO UNIVERSITY
2001

بسم الله الرحمن الرحيم

شَهِدَ اللَّهُ أَنَّهُ لَا إِلَهَ إِلَّا هُوَ وَالْمَلَائِكَةُ وَأُولُو الْعِلْمِ قَائِمًا
بِالْقِسْطِ. لَا إِلَهَ إِلَّا هُوَ الْعَزِيزُ الْحَكِيمُ

" 18 سورة آل عمران "

*There is no god but He: That is the witness of
God, His angels and those endued With
Knowledge, standing Firm On justice.
There is no God but He, The Exalted in Power
The Wise.*

APPROVAL SHEET

Title of the Ph.D. Thesis

The Effect Of Some Natural Compounds
On The Black Cutworm
Agrotis ipsilon (Hufnagel)
(Lepidoptera : Noctuidae)

Name of candidate

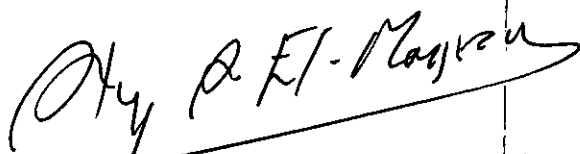
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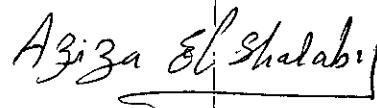
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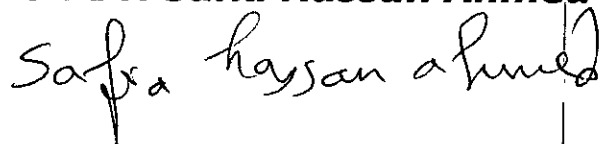


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This work is
Dedicated

To my parents, sisters and brothers
&

To my husband

In gratitude, devotion and love
&

To my lovely children

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INTRODUCTION

I. INTRODUCTION

The black cutworm *Agrotis ipsilon* (Hufn.) has long been established in Egypt as a major pest of cotton and other vegetable plants.

A. ipsilon larvae usually infest the winter crops including clover (*Trifolium alexandrinum*), wheat (*Triticum vulgare*), barley (*Hordeum vulgare*) and bean (*Vicia faba*), as well as the early summer crops including essentially the seedlings of cotton (Willcocks and Bahgat, 1937 ; Nasr and Naguib, 1963 and Beheedy, 1982).

In recent years, the economic importance of this pest increased, as the annual losses in the cotton crop especially in Upper Egypt due to their ravages were often tremendous. This stimulated some entomologists in this country to direct most of their efforts to control studies, especially by using chemicals. However, many problems have been encountered as a result of the extensive use of synthetic insecticides. Plants synthesize many secondary substances, which have great potential as alternative insect control agents. Intensive research has been conducted in Egypt as well as other countries on the biological control effects of plant extracts against agricultural insect pests.

Several plant extracts and /or their isolated active compounds have exhibited enormous potential as acute or chronic insecticides, insect growth regulators or antifeedants against a variety of insect species (Beckage *et al.*, 1988; Jilani and Saxena, 1990; Tanzubil and McCaffery, 1990 and Shapiro *et al.* 1994). Such antifeedants and /or growth regulators may be correlated with the magnitude of biochemical changes in the test species.