



شبكة المعلومات الجامعية

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شبكة المعلومات الجامعية
التوثيق الالكتروني والميكروفيلم



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جامعة عين شمس

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قسم

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



يجب أن

تحفظ هذه الأفلام بعيدا عن الغبار

في درجة حرارة من ١٥-٢٥ مئوية ورطوبة نسبية من ٢٠-٤٠%

To be Kept away from Dust in Dry Cool place of
15-25- c and relative humidity 20-40%

بعض الوثائق الأصلية تالفة



بالرسالة صفحات نم ترد بالاصل

C01769

**OVICIDAL ACTIVITY OF NATURAL AND
SYNTHETIC COMPOUNDS AGAINST
COTTON LEAF-WORM**

**By
FATMA EL-ZAHRAA IBRAHIM EL-SWEERKI**

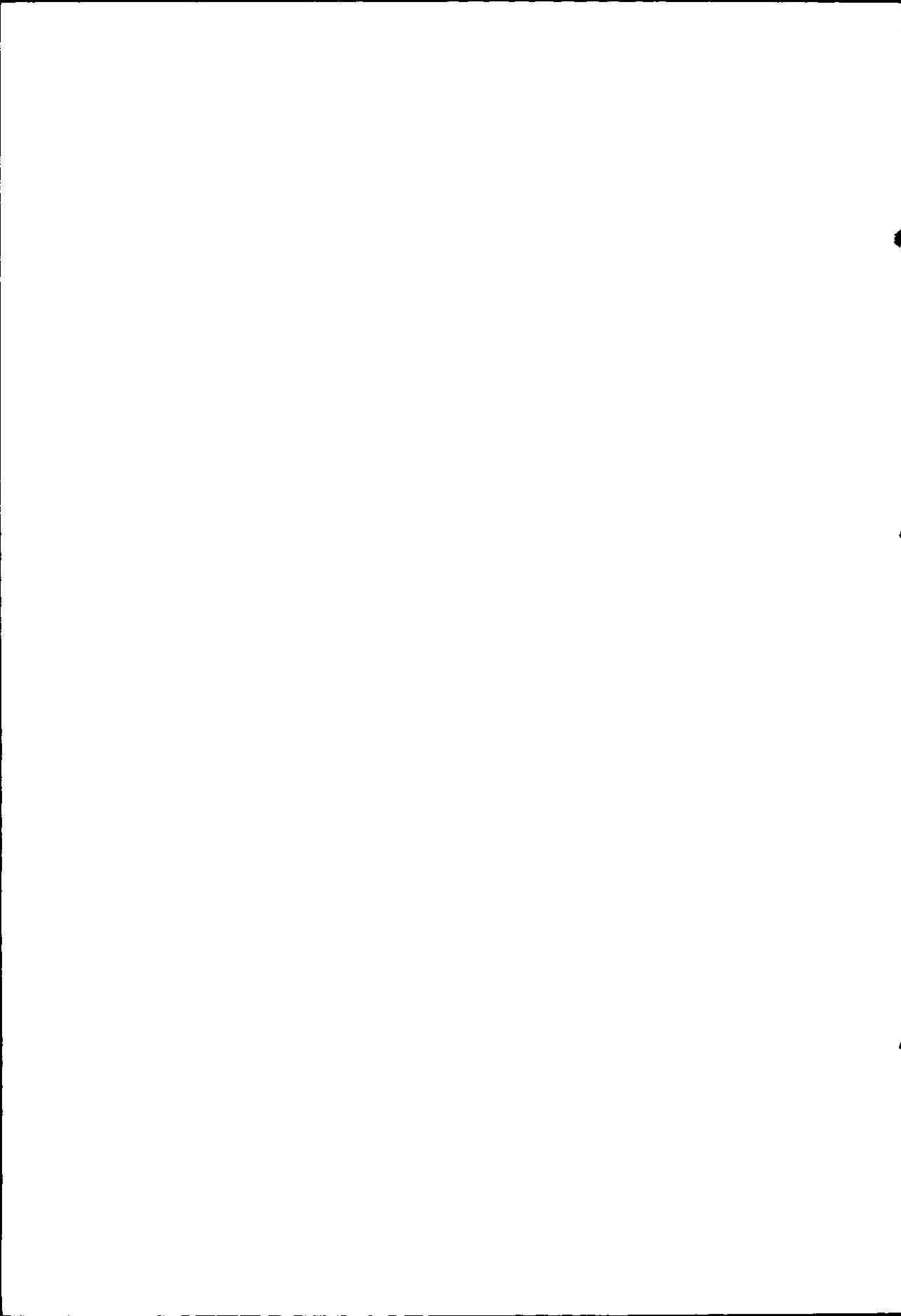
B.Sc. Agric., Ain shams Univ., 1970

M.Sc., Institute of Environmental Studies and Research

Ain Shams University., 1994

**A Thesis Submitted for Doctor of Philosophy
In
Environmental Sciences**

**Department of Agricultural Sciences
Institute of Environmental Studies and Research
Ain Shams University**



APPROVAL SHEET

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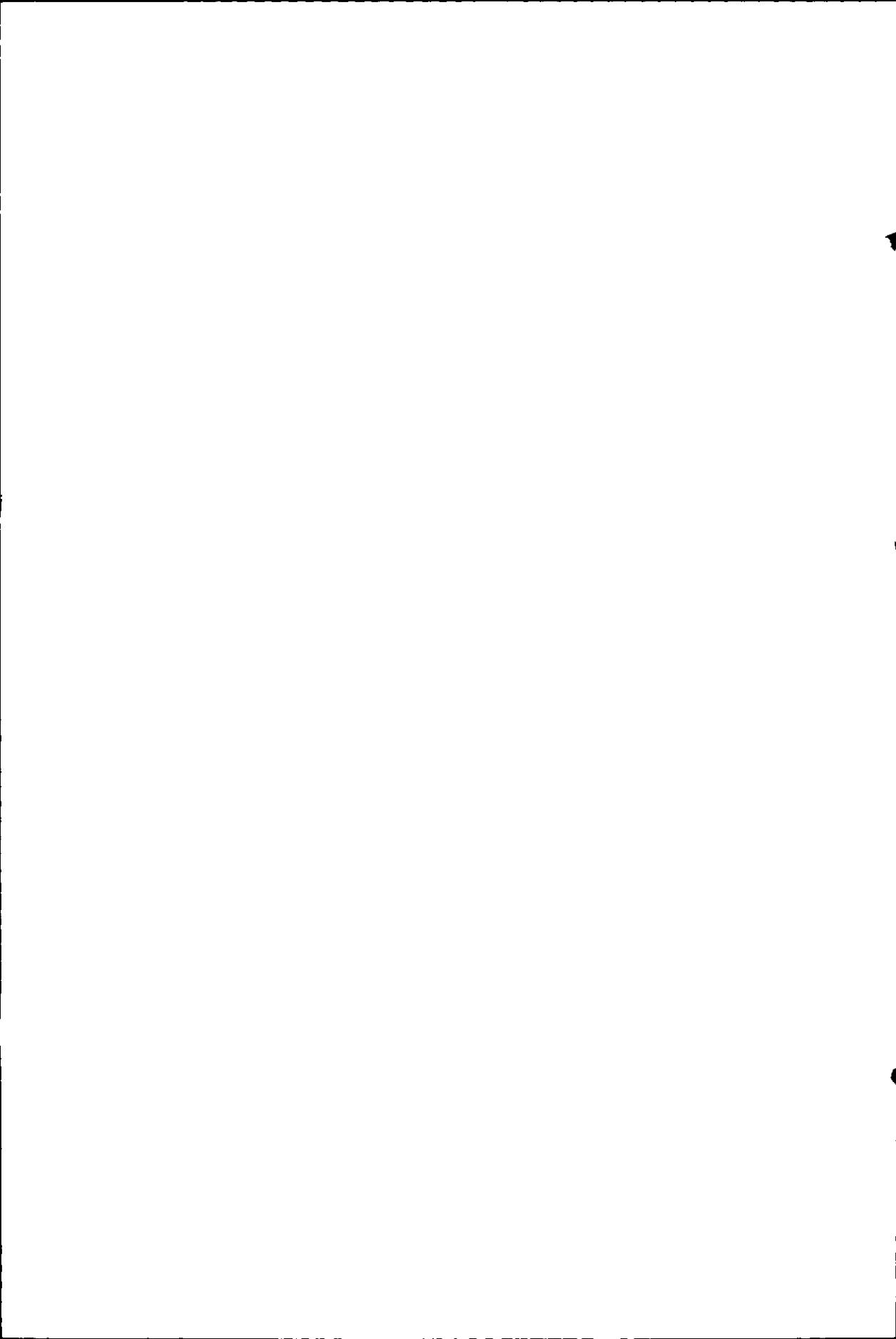
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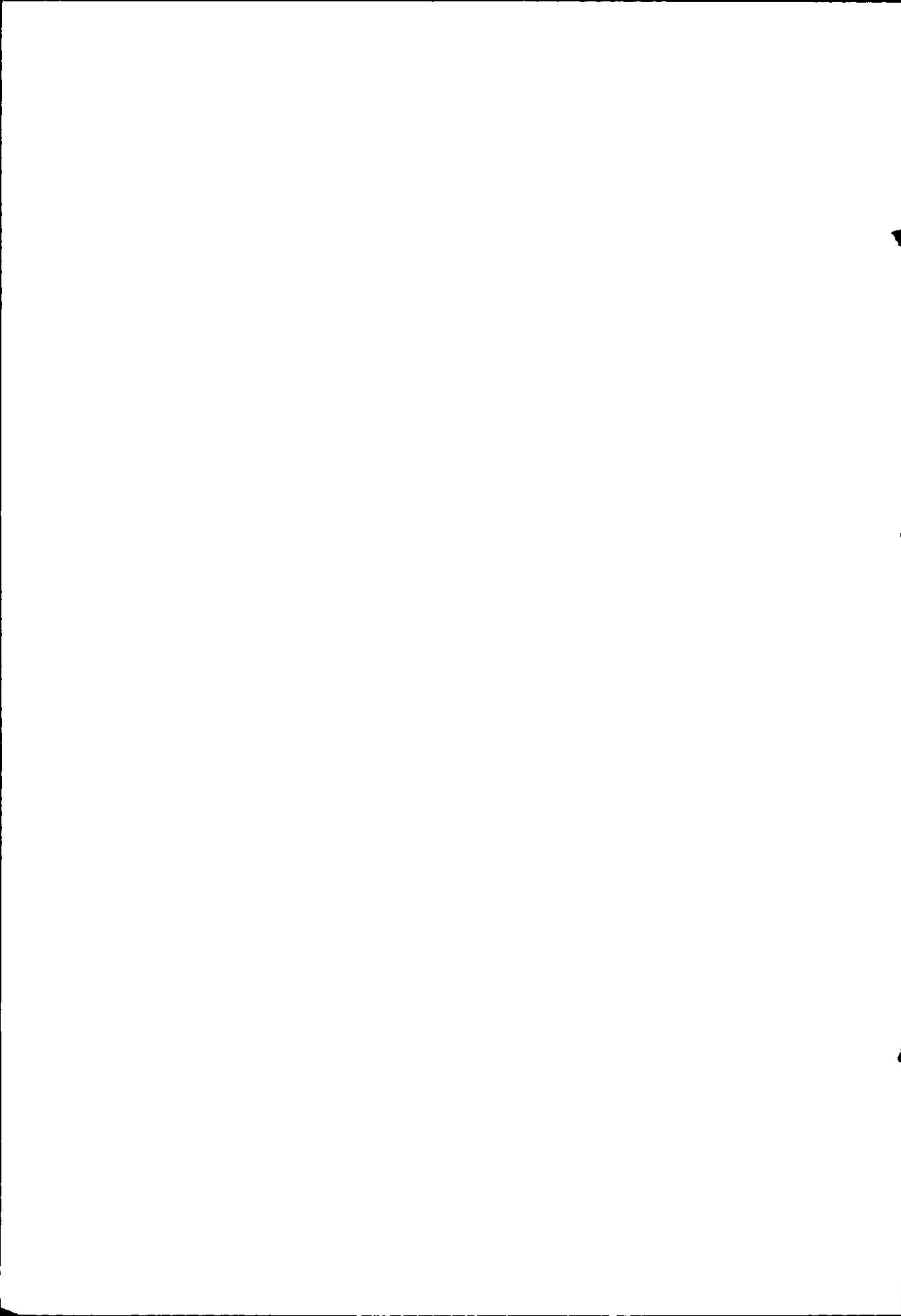
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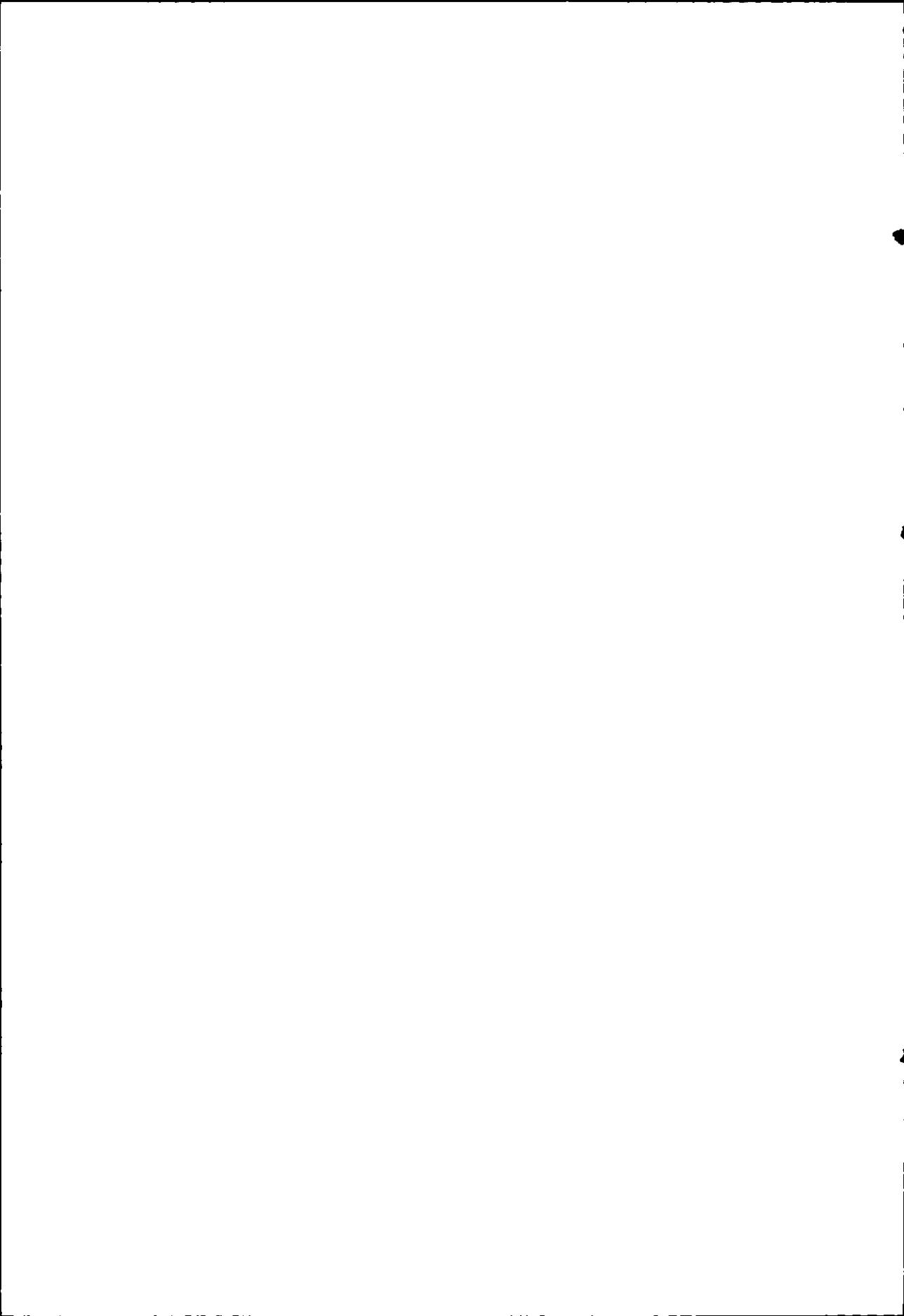


ABSTRACT

Fatma El-Zahraa Ibrahim El-Sewerki : Ovicidal Activity of Natural and Synthetic Compounds against Cotton Leafworm.
Unpublished Ph.D. Thesis in Environmental Agricultural Science, Institute of Environmental Studies and Research, 2003.

The cotton leafworm, *Spodoptera littoralis* is considered one of the most destructive pests to cotton plants which may be due mainly to the big number of eggs that be laid by female, so damage could be easily achieved in cotton fields by a relatively little number of egg-masses. Different laboratory experiment had been conducted to study the ovicidal, biological and biochemical activities of certain compounds related to different insecticidal groups on one and three-day-old eggs of *S. littoralis*. The obtained results could be summarized as follows :

- 1- According to the LC₅₀ values on the one-day old eggs, the eight tested compounds could be descendingly arranged as follows : deltamethrin (0.5 ppm), flufenoxuron (1.4 ppm), Bioneem (2.5 ppm), cyanophos (3.3 ppm), Nat-1 (16.3 ppm), Garlic-gard (24.2 ppm), pyriproxyfen (133.3 ppm) and Vertimec (188.2 ppm). As for the three-days-old eggs, deltamethrin and flufenoxuron showed the same position but the other compounds showed another trend.
- 2- The tested compounds are generally affected the different biological aspects either prolonged or shortened the larval and pupal duration and adult longevity, in addition to their effectiveness on pupal weight and the percentages of both pupation and adult emergence. The response of the successive stages of *S. littoralis* that resulted from treated one-day-old eggs was generally concentration-dependent.
- 3- The treatment of principal oviposition sites (*Nerium oleander*) with different concentrations of Vertimec and pyriproxyfen affected the behaviour of females in choosing the oviposition sites where they avoid the treated oviposition sites (*N. oleander*) and laid all their egg-masses on the internal wall surface of the oviposition jars. Also, the treatment of adult feeding solution with the two tested compounds affected the different biological aspects of the number of egg-masses deposited, number eggs/female, egg-hatchability and adult longevity.
- 4- The LC₅₀ values of pyriproxyfen, Bioneem, Nat-1, Garlic-gard and deltamethrin were tested to evaluate their effects on electrophoretic patterns of *S. littoralis* egg-masses (one- & three-day-old eggs). The number of protein bands was increased and/or decreased in treated eggs depending on the developmental egg ages and the compound used.
- 5- The effects of the tested compounds on the activity of the amino acid transaminases (GOT) & (GPT) and the acid and alkaline phosphatase in both one- and three-day-old eggs were also studied where some of the studied compound increased and/or decreased the tested enzymes activity.



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