

LABORATORY EVALUATION OF THE IGRs,
INSECTICIDES AND BACTERIAL AGENTS
AGAINST *CULEX PIPIENS*

A Thesis Submitted in
Partial Fulfilment of
The Requirements for the Award
of The Degree of Master of Science



595.71

A. Z

BY

AMANY ZAKY MOHAMED KAMAL

B. SC.

37441



Department of Entomology
Faculty of Science
Ain Shams University

M. S. Hamed
A. K. EL-Said

CAIRO

1991

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

اهداء

يكون لي عظيم الشرف أن أرفع هذا الانجاز العلمي
المتواضع الى أرواح المغفور لهم والدتي الحبيبة
ووالدي العزيز ووالدي الروحي وأستاذي الاستاذ
الدكتور / عوفى محمد جندى عبيد كلية العلوم جامعة
عين شمس لعل بإذن الله أن أكون قد وفيت حقهما
وبرهما



THESIS EXAMINATION COMMITTEES

NAME	TITLE	SIGNATURE
.....		
.....		
.....		

BIOGRAPHY

Date and place of birth : 20 December 1962.

Date of graduation : May 1984.

Degree awarded : B.sc. Entology chemsitry.

Grade : Very good.

Occupation : Demonstrator in the
Department of Entomology
Faculty of Science, Ain Shams
University.

Date of appointment : Sept. 1984.

Date of registration of
The M.sc. degree : May, 1987.

COURSES STUDIED BY THE CANDIDATE IN
THE PARTIAL FULFILMENT OF THE REQUIREMENTS FOR
THE M. Sc. DEGREE

Language : English, M. Sc. Course.

Examination passed on: November 1986.

Entomology Courses:

1. New approaches to insect control.
2. Insect hormones and pheromones.
3. Advanced taxonomy.
4. Microbiology.
5. Environmental pollution.
6. Radiation biology.
7. Pesticide chemistry.
8. How to write and publish scientific thesis.
9. Research subject.

Examination passed on: September 1986.

STATISTICAL COURSE: Biostatistics.

Examination passed on: September 1986.

Supervisors :

Prof Dr. A. M. Guneidy

Prof. Dr. M. S. Hamed

Dr. Adel. K. El-Sayed.

Head of Department

Prof. Dr. Adel E. Merdan

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Dr. Adel. K. El-Sayed.

Head of Department

Prof. Dr. Adel E. Merdan

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INTRODUCTION

I. INTRODUCTION

Mosquitoes are still the world's number - one vectors of human and domestic animal diseases, and are conspicuous nuisance pests as well, even after massive efforts for eradication or control. In certain countries, control programmes have been dramatically effective, but in other areas the control is not feasible for the foreseeable future, mainly because of technical problems and mosquito resistance to chemical insecticides .

The alternative of pesticides most prominently mentioned in recent year is biological control . The latter, however, remains a well-publicized but under supported approach to disease control. Two bacterial larviciding agents, namely, *Bacillus thuringiensis* Haly and *Bacillus sphaericus* were proved to be of highly effective larvicides against the different mosquito species. Another agent which was used in the control of mosquito is insect growth regulators. A number of insect growth regulators have been evaluated in the laboratory and under field conditions against flood and stagnant water mosquitoes. Some of these materials exhibited excellent activity against field populations of susceptible and resistance strains of different mosquito species.

Taking into account all the above mentioned considerations, the present investigation at finding of the perspectives which may support in the future the integrated control programmes of mosquitos in Egypt such as the importance of some naturally occurring bacteria & insect growth regulator agents which may act after further investigations as alternatives to currently used organic synthetic insecticide. Therefore the objectives of the present investigation are concerning the following studies:

- 1 - Evaluation of the susceptibility of *Culex pipiens* larvae to the different concentrations of each larvicide agent.
- 2 - The effect of using mixtures of bacterial larvicides, chemical insecticides as well as insect growth regulators against *Culex pipiens* larvae.

LITERATURE REVIEW