STUDIES ON NATURAL ENEMIES OF CERTAIN INSECTS ATTACKING LEGUMINOUS CROPS

By

SALWA SAYED MOHAMED ABDEL-SAMAD
B.Sc. Agriculture (Entomology) Cairo University, 1987

A thesis submitted in partial fulfillment
of
the requirements for the degree of

Master of Science

632.752
S.S

52174

In
Agriculture

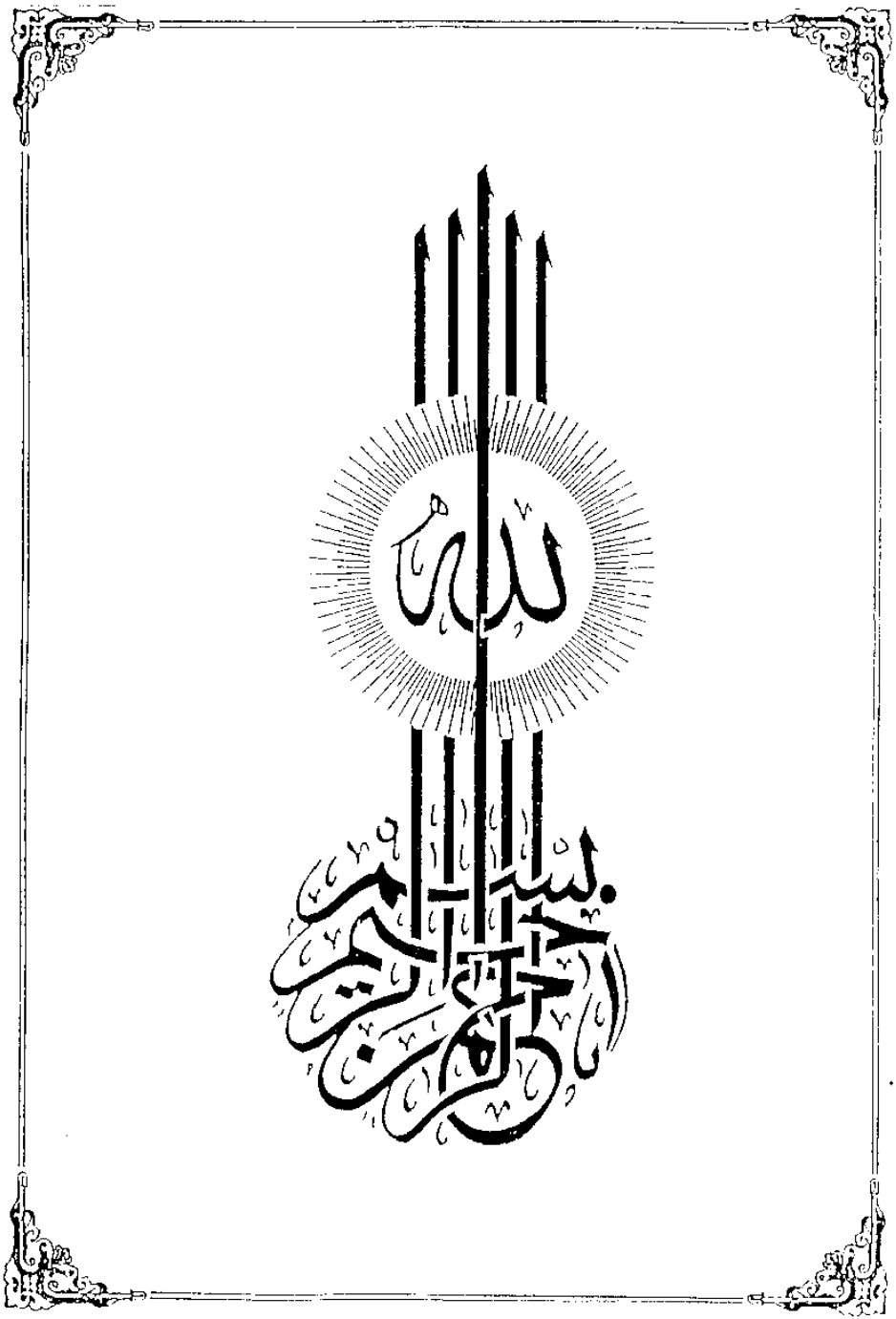
(Entomology)

Department of Plant Protection
Faculty of Agriculture
Ain Shams University

1996

Central Library - Ain Shams University

Central Library - Ain Shams University



Central Library - Ain Shams University

Approval Sheet

STUDIES ON NATURAL ENEMIES OF CERTAIN INSECTS ATTACKING LEGUMINOUS CROPS

By

SALWA SAYED MOHAMED ABDEL-SAMAD
B.Sc. Agriculture (Entomology) Cairo University, 1987

This thesis for M.Sc degree has been approved by:

Prof. Dr. Amira A. Ibrahim.....
Researcher chief, Biological Control Department,
Agriculture Research Center, Ministry of Agriculture.

Prof. Dr. A. A. A. Gomaa.....
Prof. of economic Entomology, Faculty of Agriculture,
Ain Shams University.

Prof. Dr. G. N. Rezk.....
Prof. of economic Entomology, Faculty of Agriculture,
Ain Shams University (Supervisor)

Date of examination 29 \ 6 \1996

Central Library - Ain Shams University

Central Library - Ain Shams University

STUDIES ON NATURAL ENEMIES OF CERTAIN INSECTS ATTACKING LEGUMINOUS CROPS

By

SALWA SAYED MOHAMED ABDEL-SAMAD
B.Sc. Agriculture (Entomology), Cairo University, 1987

Under the supervision of

Prof. Dr. G. N. Rezk
Prof. of economic Entomology, Faculty of Agriculture, Ain Shams University

Prof. Dr. A. M. A. Hekal
Prof. of economic Entomology, Faculty of Agriculture, Ain Shams University

Prof. Dr. A. H. El-Henidy
Researcher Chief, Biological Control Department, Agriculture Research Center.

Central Library - Ain Shams University

Central Library - Ain Shams University

ABSTRACT

The population density of *Aphis craccivora* and its natural enemies on broad bean plants was studied at Sids Agricultural Experimental Station Beni-Suefe Governorate during the two sucessive seasons of 1992-1993 and 1993-1994 in two different dates of cultivation. Two major subjects were studied. The first concerned with the ecological studies including the population densities of both *Aphis craccivora* and its natural enemies. The ecological study approved the existance of six predator insects namely: *Coccinella undecimpunctata, Chrysoperla carnea, Paederus alfierii, Orius sp.* and *Scymnus sp. and four* parasitoid i.e. *Aphidius matricariae, Chalicd sp., Lysiphlebus fabarum and Trioxys angelicae.* Moreover, different species of true spiders. The second part was directed to study certain biological aspects belonging to the more dominent endoparasitoids of *Lysiphlebus fabarum* . More details for the description of its immature stages inside the host were provided.

Key words: Biological control - Ecology - Biology-description Natural enemies - Endoparasitoid - Bioagent Predators - *Aphis craccivora* - *Lysiphlebus fabarum, Vicia faba.*

Central Library - Ain Shams University

Central Library - Ain Shams University

ACKNOWLEDGEMENTS

The author would like to express her deepest thanks and gratitude to Prof. Dr. George Nasralla Rezk Professor of Economic Entomology, Department of Plant Protection, Faculty of Agriculture, Ain Shams University for suggesting the problem, continuous guidance, supervision and keen revision of this manuscript.

She also greatly indebted to Prof. Dr. Abdel Mohsen Hekal, professor of Economic Entomology at the same Department, for his supervision, advice, continuos guidance and valuable suggestions.

Thanks are also due to Prof. Dr. Ahmed Hussen El-Heneidy Researcher Chief Biological control Department, Agriculture Research Center, Ministry of Agriculture, for his supervision, advice and constructive suggestions.

Sincere thanks are offered to Dr. Adel Bassiouny Lecturer of Economic Entomology , Department of Plant Protection, Faculty of Agriculture, Ain Shams University for his greatful help during this course of study.

Deep thanks are also appreciated to all members of the Biological Control Department for their kind support.

Central Library - Ain Shams University

Central Library - Ain Shams University

CONTENTS

Central Library - Ain Shams University

Central Library - Ain Shams University

Central Library - Ain Shams University

LIST OF TABLES

Central Library - Ain Shams University