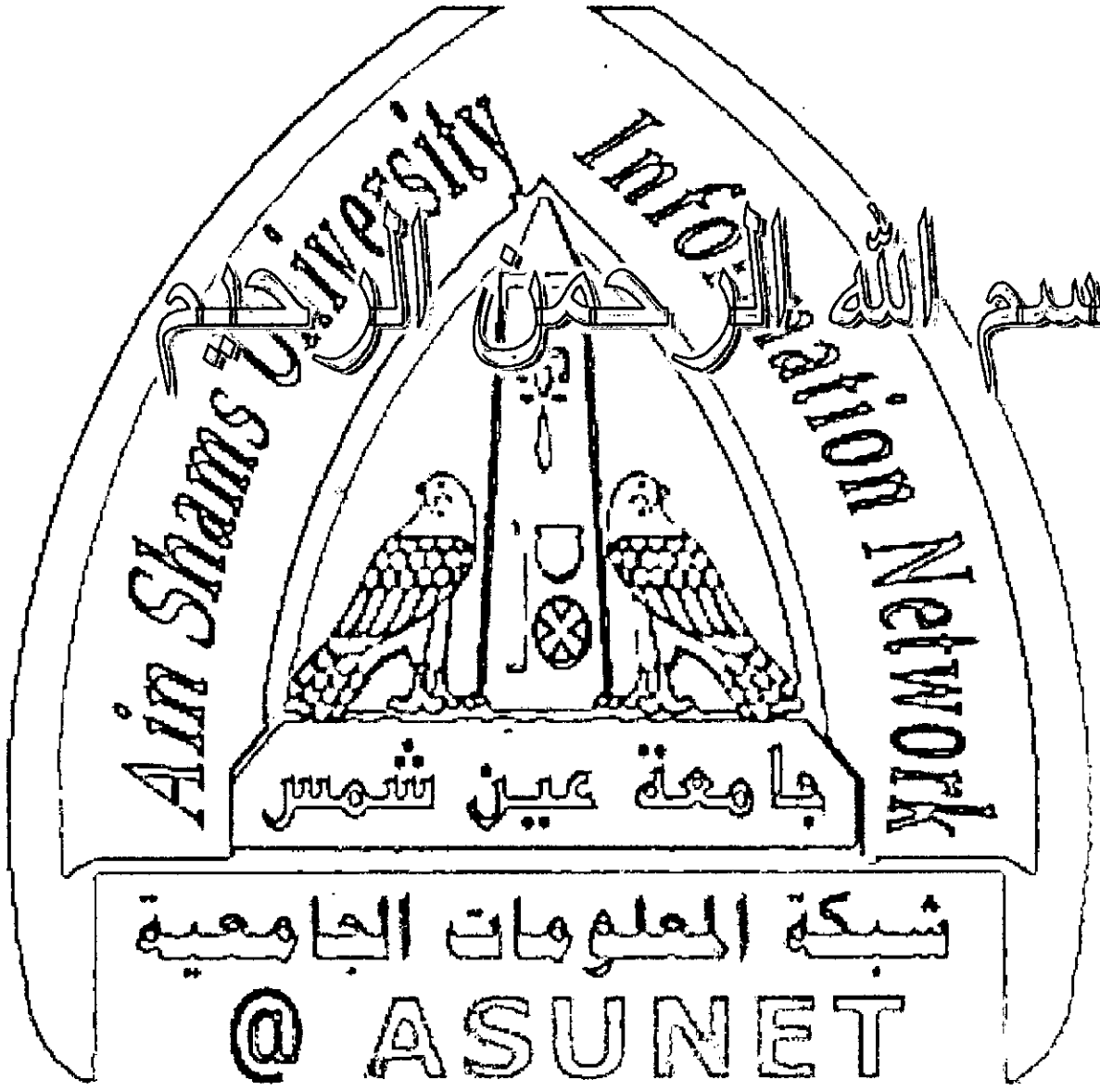
شبكة المعلومات الجامعية



شبكة المعلومات الجامعية

التوثيق الالكتروني والميكروفيلم

شبكة المعلومات الجامعية

جامعة عين شمس

التوثيق الالكتروني والميكروفيلم

قسم

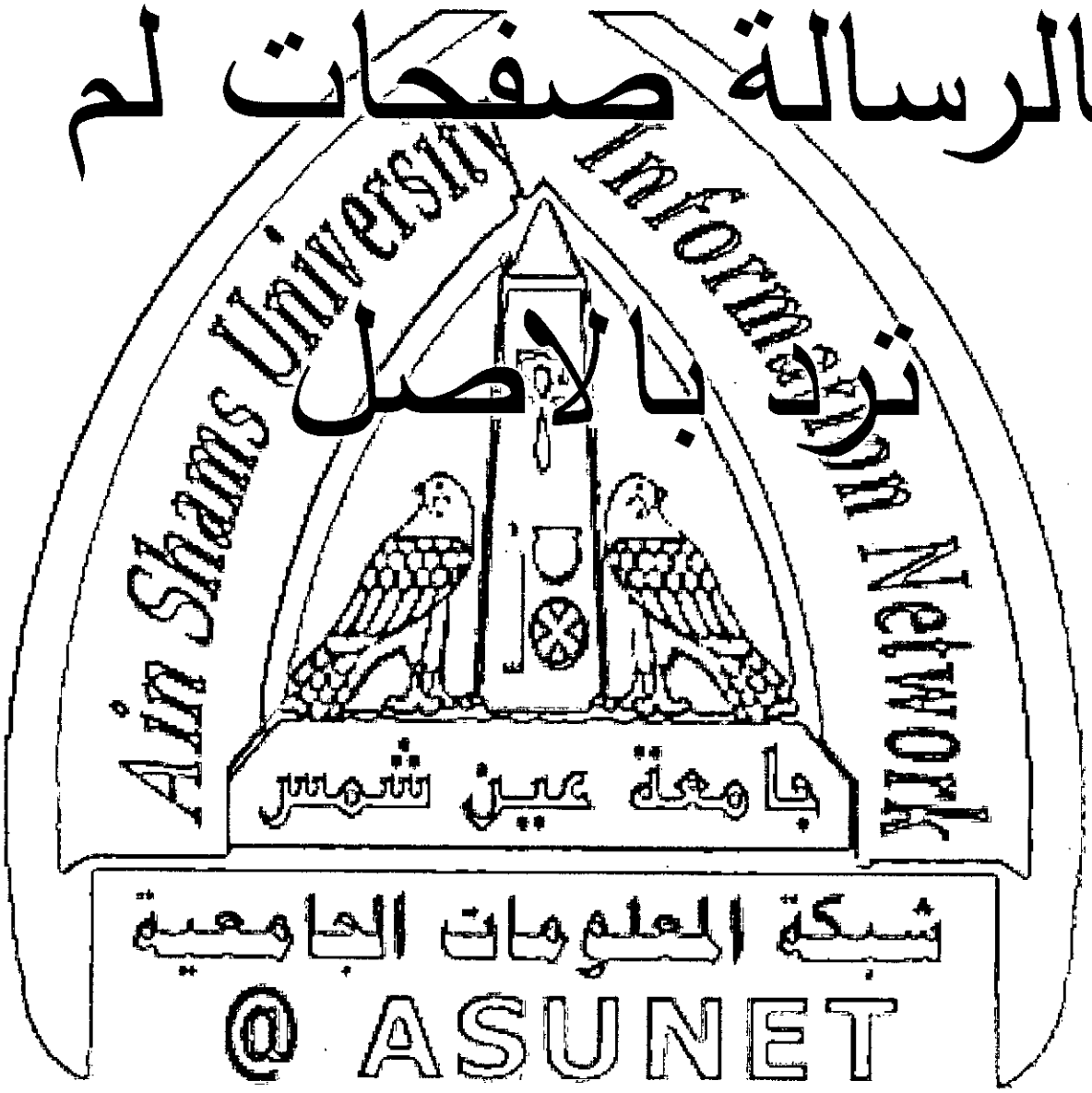
نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها
علي هذه الأفلام قد أعدت دون أية تغيرات

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%

بالرسالة صفحات لم ترد بالأصل



بعض الوثائق الأصلية تالفة

Ecological and Biological Studies on *Bemisia tabaci* (Genn.) and *Spodoptera littoralis* (Boisd.) on Cowpea Crop In Arab Republic of Egypt

By

Mohamed Mohamed Ahmed El Badry

B.Sc. Agriculture Science Zagazig University, Banha Branch 1974

M.Sc Economic Entomology, Zagazig University, Moshtohor.1996

Thesis

Submitted in Partial Fulfillment of the Requirement for the Degree of

Doctor of Philosophy in Agricultural Sciences

Economic Entomology

Plant Protection Department

Faculty of Agriculture - Tanta University

2006

بسم الله الرحمن الرحيم

قالوا سبحانك لا علم لنا الا ما علمتنا انك أنت العليم الحكيم

"البقرة ٣٢ "

صدق الله العظيم

Approval sheet

Name of student: Mohamed Mohamed EL badry

Title of thesis:

Ecological and Biological Studies on ***Bemisia tabaci*** (Genn.) and ***Spodoptera Littoralis*** (Biosd) on Cowpea crop in Arab Republic of Egypt.

Degree, Ph.D. inAgricultural Sciences

(Economic Entomology)

Approved by

Prof. Dr. Abd EL- Hakeem El Shirbeni. Shirbeni

Prof. Dr. Helmy Aly Anbar. .....

Prof. Dr. Aly ABd El Aziz El Sheikh. A.A.El Sheikh

Prof. Dr. Hassan Kasem Bekhite. H.K. Bekheit...

Committee in charge

Date 23/12/2006

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Supervisor

Prof. Dr.

Abd EL- Hakeem El Shirbeni

Prof. Dr.

Hassan Kasem Bekhite

Dr.

El-sayed Abd-Elaziz Kishk

Abstact

Cowpea, ***Vigna unguiculata*** (L) is the most important legume vegetable crop in which protein content is the highest one among other legumes. Cowpea is cultivate an area ; sixteen million feddan in all over the world. In Nigeria and Niger 70% of the world cowpea cultivated area on the rainfall. In Egypt the area of the cowpea nearly seven thousand feddans, the average yield estimated approximately by one ton/feddan, the most cultivated area of cowpea are directed for the production of dry cowpea seeds (Saweris, 2003). Numerous insect pest species invade cowpea and cause serious damage to plants and seeds.

Recently the cotton whitefly, ***Bemisia tabaci*** (Genn.) became one of the major pest of vegetable crops especially legume. It causes yield reduction as a result of feeding on plant sap, covering the plant with sooty mold and transmitting serious virus disease (Natwik *et al.*, 2000). Also, the major serious and destructive insect pest of cowpea crop is the cotton leafworm, ***Spodoptera littoralis*** (Biosd). It was recommended to use some bioinsecticide compounds to avoid different side effects of chemical insecticides use as environmental pollution through the control of the whitefly and the cotton leafworm on vegetable and edible crop.

Now it has become necessary to search for alternative methods of pest control agents which minimize the use of traditional synthetic pesticides such as mineral oils, insect growth regulators, plant extracts and microbial insecticides e.g. Nuclear Polyphydrosis Virus (NPV); bacteria, ***Bacillus thrinungensis*** (Bt) and fungus , ***Beauvaria bassiana***.

The present investigation was conducted during the period 2000 and 2001 seasons to study the following points:

1- Survey of insect associated with cowpea plants
2- Susceptibility of some cowpea cultivars to infestation with whitefly, ***B. tabaci*** **(Genn.)**
3- Seasonal fluctuation of whitefly population of cowpea plants.
4- Field evaluation of some control measures against whitefly, ***B. tabaci***
5- Laboratory evaluatation of certain Microbial and chemical insecticides against the second and the fourth larval instars of cotton leafworm.

Acknowledgment

Firstly, ultimate thanks to God who gave all causes for accomplishing this work.

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