



شبكة المعلومات الجامعية

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ





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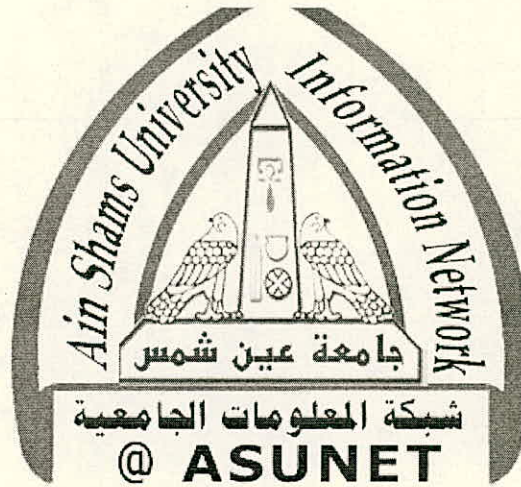
التوثيق الالكتروني والميكرو فيلم

جامعة عين شمس

التوثيق الالكتروني والميكرو فيلم

قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها
على 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
15 – 25c and relative humidity 20-40 %



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بعض الوثائق الأصلية تالفة



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بالرسالة صفحات

لم ترد بالأصل

**A STUDY ON THE ECOLOGY AND
BIOLOGICAL CONTROL OF SUBTERRANEAN
TERMITES**

By

AYMAN RAMADAN ELBASSYONI

B.Sc. Agric. (Plant Protection), Al-Azhar University, 1993

THESIS

**Submitted in Partial Fulfillment of the
Requirements for the Degree**

of

MASTER OF SCIENCES

IN

AGRICULTURE

(Economic Entomology)

Plant Protection Department

Faculty of Agriculture

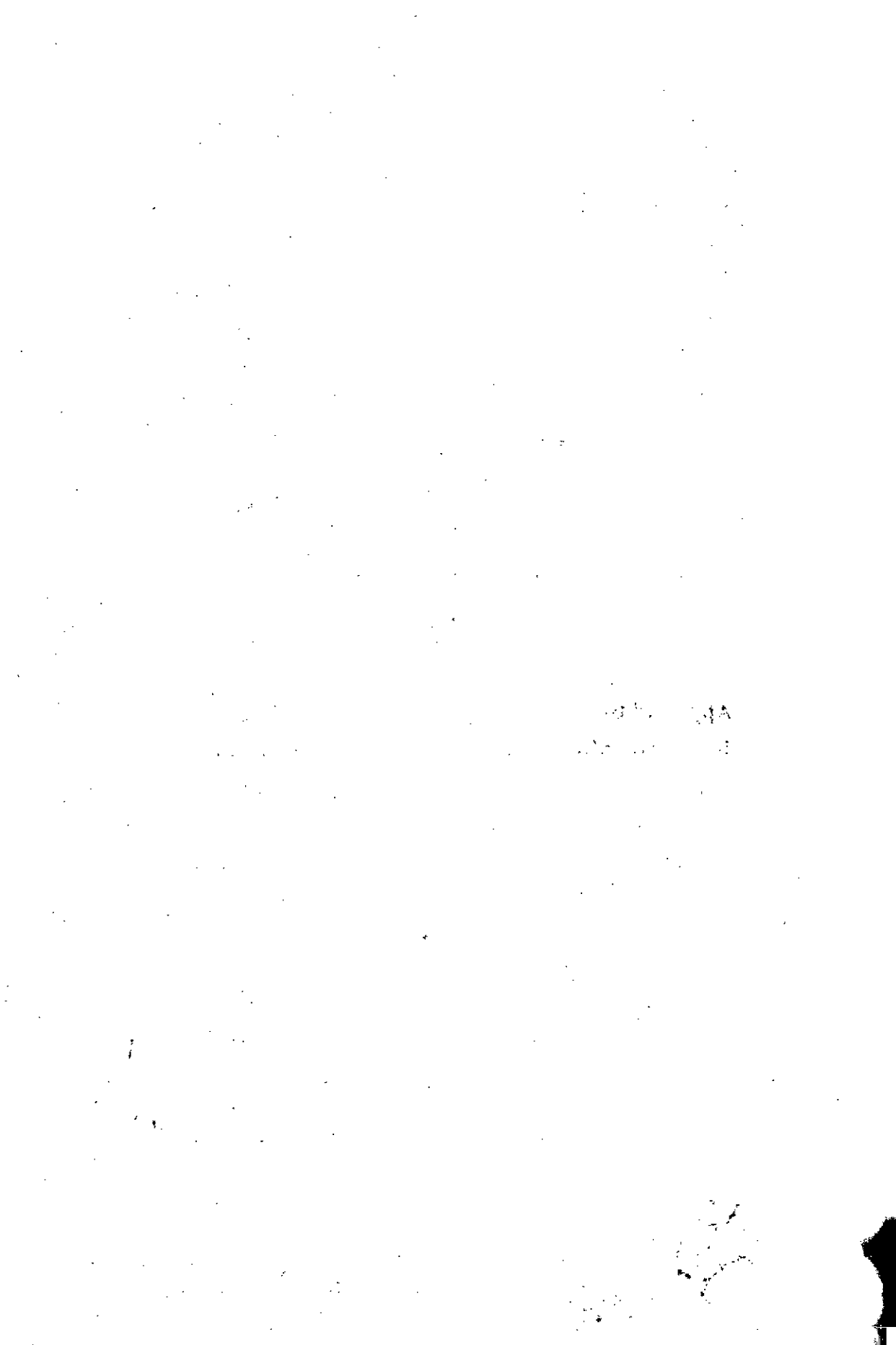
Al-Azhar University

1422 A.H.

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APPROVAL SHEET

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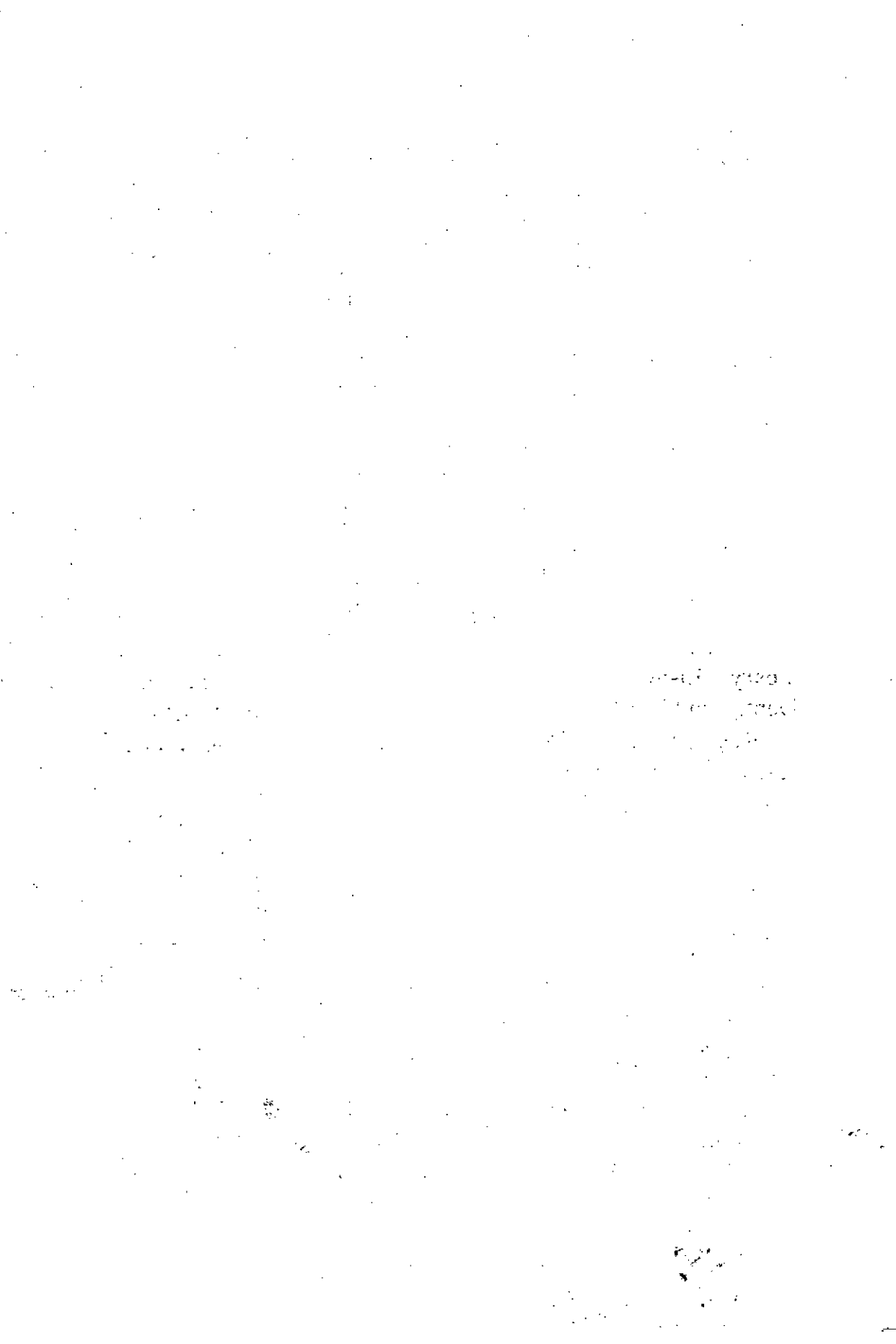
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ABSTRACT

Study of sand termite, *Psammotermes hypostoma* (Desnuax), throughout two successive years of 1995 and 1996, clarified that, the termite individuals were abundant during winter and autumn seasons. The workers, first and second nymphs and soldiers were abundant in the winter and reduced during summer season. On the other hand, swarming of winged casts (alates) were occurred during autumn and summer months. The population of workers represented the highest percentages from the total numbers of gallery, followed by soldiers, nymphs and alates.

In summer 1995 and 1996, the attraction rate of traps in the tested area (surface activity) was higher during autumn and winter and lower in summer, while the surface activity (food consumption and soil translocated without insects) were higher during summer and autumn, while were lower during winter season throughout 1995 and 1996. Also the highest number of caught traps was recorded during winter and the lowest one occurred during summer. Food consumption by termites was higher during spring and summer, while it was lower during winter. Soil translocation (construction) showed also the same trend.

Ten (10 colonies were detected in the tested area (456m^2), and the moving of colony as follow: a- colony is not stable in a fixed position, b- the border of colony differs in size, c- size of the colony increased during winter.

The effect of soil temperature was negatively correlated upon the foraging activity (number of termites), while it has shown a positive effect on the two aspects; food consumption and soil translocation.

Termites activity did not show significant differences on the soil components, determined by mechanical analysis. On the other hand, chemical components of the soil indicated that, organic matters were higher in the infested area.

Results of using of some bioagent, *Bacillus thuriangiensis* var. *kurstaki*; *Beauveria bassiana*, and Nematodes (*Steinernema carpocapsae*) against termite, *P. hypostoma* showed that nematodes treatment resulted in higher mortality values followed by (*B.t. kurstaki*), while mortality values of *B. bassiana* , were not evidence.