شبكة المعلومات الجامعية

بسم الله الرحمن الرحيم

شبكة المعلومـــات الجامعية

التوثيق الالكتروني والميكروفيلم

شبكة المعلومات الجامعية

جامعة عين شمس

التوثيق الالكتروني والميكروفيلم

﴿ قـسـم ﴾

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها
علي هذه الأفلام قد اعدت دون آية 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 %

بعض الوثائق الأصلية تالفة

بالرسالة صفحات

لم ترد بالأصـــل

ALEXANDRIA UNIVERSITY

Faculty of Agriculture

(Saba Pasha)

Plant Protection Department

STUDIES ON MITES IN FARM MANURE

BY

SALEH ABDEL-STAR BAHEEG AHMED

A Thesis Submitted on Partial Fulfillment of the Requirements Governing the Award of the Degree of

MASTER OF AGRICULTURAL SCIENCES

(PESTICIDES)

PLANT PROTECTION DEPARTMENT

From

ALEXANDRIA UNIVERSITY

2010

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STUDIES ON MITES IN FARM MANURE

Presented by

SALEH ABDEL-STAR BAHEEG AHMED

For the Degree of

MASTER OF AGRICULTURAL SCIENCES

(PESTICIDES)

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CHAPTER 1

INTRODUCTION

Manure is an organic matter; usually used as an organic fertilizer to increase the soil fertility and vigor of plant growth. Fertilizers can be divided into two classes: organic or inorganic manures, which often provide more than one of many substances needed for plants. Natural manure contains large quantities of nitrogenous compounds and owe their values as fertilizers to this fact. Cow or sheep dung are the most available common organic compounds. These manures may be admixed with soil or they can be added to compost. When fresh, they may be mixed with water to prepare manure tea which could be easily applied to the soil around the plants. These manures, when dried, may be also mixed with potting soil. As these manures do not contain a high proportion of plant food requirements, frequent applications are required. Poultry manure is available from chickens, ducks, geese, turkeys, pigeons, parrots, and other farm birds. Poultry manure may be also used fresh when mixed with soil or as a poultry manure tea after first being rotted for a short time in water. Poultry manure is more nitrogenous than the cattle manures. Poultry manure should be stored in a closed container as it is foul-smelling. The benefits of manures pertain to their components of macro and minor nutrients, small amounts of trace nutrients, increasing soil microorganisms, improving soil structure and improving overall plant health. In addition, manure is considered to be a low cost fertilizer source.

Manure is regarded as a suitable media for certain insects and mites. Mites have colonized almost every terrestrial marine and fresh water habitat known to man (Krantz, 1978). The acari exhibit various associations with other organisms, phytophagy; predation and parasitism to intricate commensal and phoritic relationships (Evans *et al.*, 1961).

The knowledge of distribution and abundance of manure fauna as a part of the structure of an ecosystem is very important in order to understand the dynamics of any ecosystem. Manure mites are of a great biological importance both in natural and in cultivated soils. Much attention has been paid to soil fauna, especially mites because of their sensitivity to a number of chemicals used in agriculture.

The factors causing manure mites to aggregate are still unknown. Generally, such a distribution might be explained by several factors, e.g. the clustering of eggs, the choice of microhabitats which are particularly suitable as a result of local conditions, such as the soil type and quality, vegetation cover, soil temperature and moisture, season and monthly average temperatures, relative humidity and rain fall (Edwards and Lofty, 1971; Butecher *et al.*, 1971; Usher, 1976 and Zaki, 1983).

In Egypt, the farmers are using manure for soil fertilization and this manure contain many of the predaceous mites that might be useful against nematodes (Afifi, *et al.*, 1986b) and species of Diptera inhabiting soil (Glida *et al.*,2003 and