
شبكة المعلومات الجامعية

بسم الله الرحمن الرحيم


# 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%**

# بعض الوثائق الاصلية تالفة

# بالرسالة صفحات لم ترد بالاصل

# Utilization of some natural materials for protection of the potato crop from insect infestation.



A thesis
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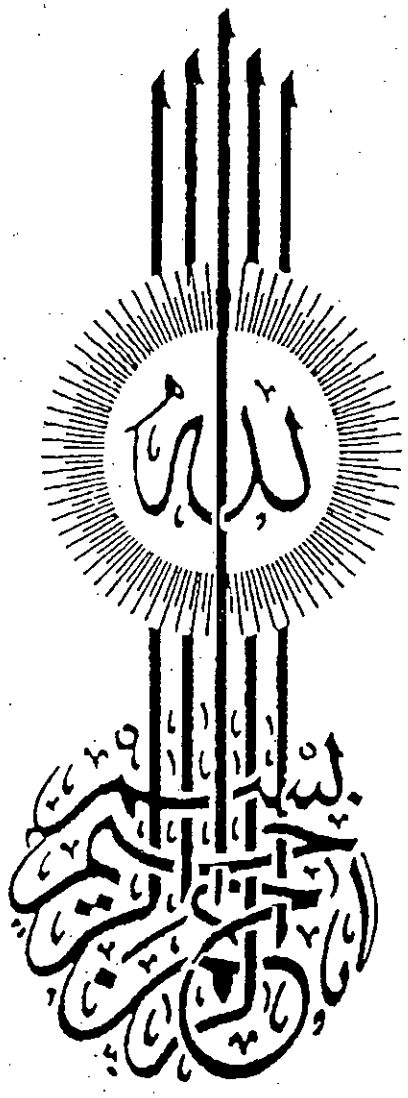
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# Abstract

A field study on the susceptibility of nine potato varieties to major potato insect pests during two winter seasons ( 1996-1998 ) indicated that the highest population density of the white fly *(Bemisia tabaci)* and aphids *(Mzyus persicae and Aphis gossypii)* was recorded on Bern variety Sanorata and Oleva varieties were the least susceptible to the white fly; while Singe variety was the least susceptible to aphids infestation.

Field infestation with the potato tuber moth ( PTM), *Phthorimaea operculella* , on the other hand , was very low in all tested varieties; and appeared only near the end of the winter season . Intercropping potato with onion significantly reduced infestation with the white fly and aphids in the field.

Moreover , laboratory evaluation of the susceptibility of tubers of 12 potato varieties to infestation by PTM was carried out through the study of its ovipositional and feeding preferences using choice and non - choice tests.

For protecting potato tubers from PTM infestation during storage, different concentration of ten natural plant oils, five plant powders and three commercial monoterperes were tested, some as fumigants or dusts against adults or dusts against neonate larvae , while others as sprays on the gunny sacks in which potato tubers were stored . Tuber damage indices as well as persistence indices for tested materials were assessed.

Besides, oxygen consumption by moths exposed to vapours of *Cymbopogon, Mentha* and *Myristica* oils was measured for three hours.

Key words: potato protection - potato varieties - intercropping - plant oils - monoterpenes - $O_2$ consumption.

# List of Tables :