سامية محمد مصطفى

شبكة المعلومات الجامعية

بسم الله الرحمن الرحيم

سامية محمد مصطفى

شبكة المعلومات الجامعية

شبكة المعلومات الجامعية

التوثيق الالكتروني والميكروفيلم

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سامية محمد مصطفى

جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم

قسم

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

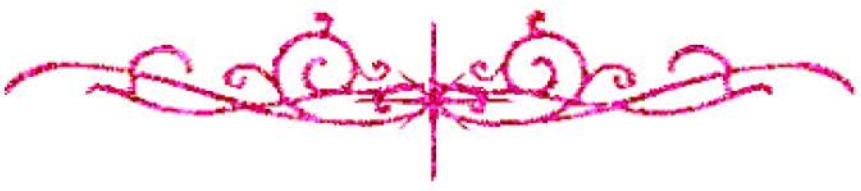
يجب أن

تحفظ هذه الأقراص المدمجة بعيدا عن الغبار

سامية محمد مصطفى

شبكة المعلومات الجامعية

بعض الوثائق الأصلية تالفة



سامية محمد مصطفى

شبكة المعلومات الجامعية

بالرسالة صفحات لم ترد بالأصل

NEW APPROACHES TO CONTROL FILARIAL PARASITE AND ITS VECTORS USING SELECTED NATURAL EXTRACTS AS SAFE CONTROL AGENTS

A Thesis

Presented to the Faculty of Science
Ain Shams University

For

The Award of The
Ph.D. Degree

By

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NEW APPROACHES TO CONTROL FILARIAL PARASITE AND ITS VECTORS USING SELECTED NATURAL EXTRACTS AS SAFE CONTROL AGENTS

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Abstract

The present study was conducted to evaluate the mosquito larvicidal effect of some plant extracts against *Culex pipiens* , the main vector of lymphatic filariasis in Egypt. From eighteen plant extracts screened for their larvicidal activity against *Cx. pipiens* larvae, only eleven showed toxicity with different grades. Petroleum ether extracts of both *Achillea (Ac.) fragrantissima* and *Nerium (N.) oleander* were the most toxic plant extracts with LC_{50} values of 45.23 and 95.7 ppm respectively. The present results revealed that larvae were more susceptible to petroleum ether extract as a whole than their fraction. Phytochemical screening of *Ac. fragrantissima* and *N. oleander* using gas liquid chromatography was carried out to identify their hydrocarbons, sterols and/or triterpenes as well as fatty acid content. *Culex pipiens* larvae were susceptible to insecticide (cyphenothrin) and IGR (chlorfluazuron). The addition of small concentration (LC_{10}) of cyphenothrin to different concentrations of *Ac. fragrantissima* increased its efficacy comparing to insecticide alone. The third instar larvae were exposed to sublethal concentrations (LC_{40}) of both *Ac. fragrantissima*, cyphenothrin and their mixture and *N. oleander*. *Achillea fragrantissima*, cyphenothrin and their mixture gave more effect than *N. oleander* on fecundity, egg hatching, pupation and sex ratio. Treatment of *Cx. pipiens* larvae with sublethal concentration (LC_{40}) of *Ac. fragrantissima*, cyphenothrin and their mixture affected vector competance to *Wuchereria bancrofti* including ingestion of microfilariae, infection, infective and survival rates, distribution of L_3 larvae in mosquito adults and experimental index.