

بسم الله الرحمن الرحيم





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جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم

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COMPARATIVE STUDIES ON AVICIDES OF SOME CERTAIN BIRDS

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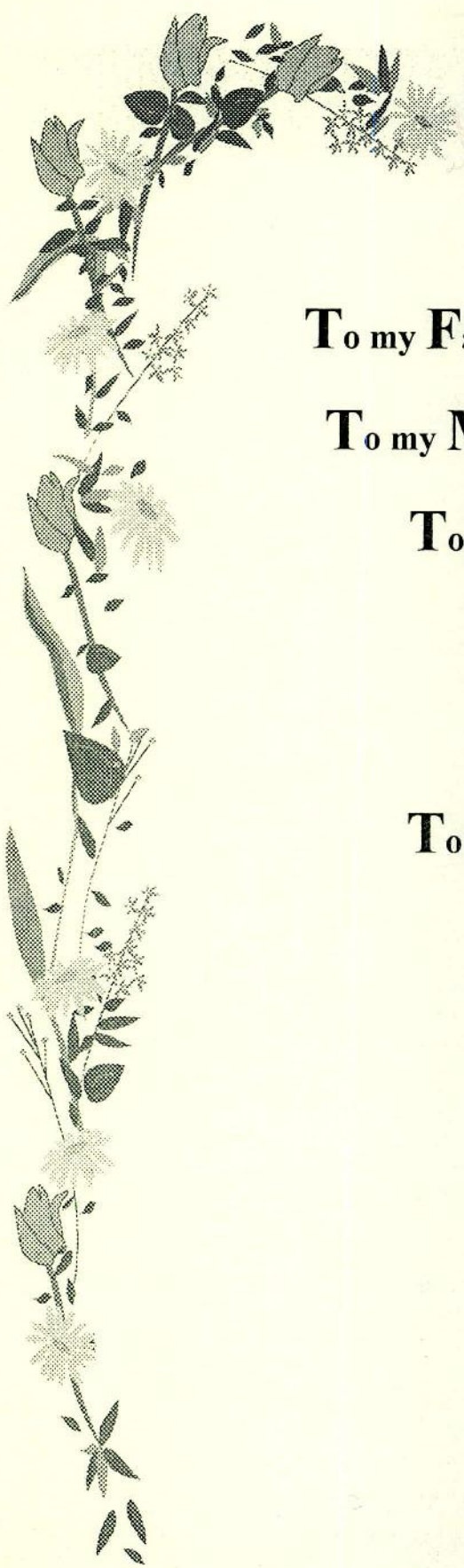
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To my Father

To my Mother

To my Brothers :

Accountant Ibrahim

Dr. Ahmed

To my Sisters :

Dr. Gamalat

Eng. Iman

Doaa



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Introduction

INTRODUCTION

Bird damage to crops, particularly cereal grains, is a serious problem all over the world. In African countries, in a country like Egypt with a limited cultivated area, food insufficiency is the major problem that faces the over growing human population. The Egyptian government started to approach and solve this problem by the reclamation of desert lands.

Recently, in Egypt, the house sparrow, *Passer domesticus niloticus* are considered the most economic vertebrate pest in the agricultural land, particularly in the newly reclaimed areas until now. These pests were controlled chemically by using synthetic avicide such as repellent compounds (Methiocarb) or insecticides (El-Deeb, 1990 and Abd-El-All, 1995).

Therefore, the widespread use of synthetic organic pesticides since 1945 helped in increasing agricultural production and decreasing the incidence of endemic and epidemic diseases. However, the massive application of pesticides, resulted in build-up pest resistance to these poisons, and also resulted in adverse effect on the environment. The adverse effect include acute and chronic toxicity to humans and non-target organisms, environmental pollution and upsetting the natural balance. Such environmental problems have focused increased interest on pesticides occurring naturally in plants. Ideally, these new types of pest control agents should be active against limited number of species including specific target organisms. Such agents are biodegradable to non-toxic products and can be suitably implementing in programs of integrated

pest management. During the last two decades many attempts have been made to isolate and identify various naturally occurring biologically active compounds possessing pesticidal properties.

However, several of these bioactive components were reported to exhibit synergistic properties to some traditional synthetic pesticides. In addition, several insect feeding deterrents have been isolated from certain plant species. Also, it was reported that many of these naturally occurring substances had arrestant effects on insect growth. The pesticidal and biological activities of plant extracts were extensively studied by several researchers, *i.e.* **Butler and Henneberry (1991), Farag *et al.* (1993), Zidan *et al.* (1993 & 1994), Abd El-All (1995 & 1998), Ismail (1997) and Salem & Ahmed (1997).**

Therefore, the present work was directed to search some biological active constituents and clarify their potent :

1- Toxicity studies :

1.1- Repellency and avicidal activities of some wild plant extract and some pesticides.

1.2- R₅₀ and LD₅₀ determinations.

2- Preliminary screening of phytochemical constituents studied in bioactive extracts.

3- Effect of some tested compounds on avian eggs.

4- Biochemical response of house sparrow and palm dove to ethanolic camphor leaves extract and methomyl pesticide.

5- Histopathological studies.

Review of Literature