

# INTRODUCTION

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The recent increase in the population of some scarabaeid insects in Egypt has been a cause of concern for entomologists and those who are involved in pest control because of the damage caused by these insects to fruits and Orchard trees, vegetables field crops and ornamental plants. Ali and Ibrahim (1988) surveyed the adults of *T. squalida* on flower of 26 ornamental plant species as well as citrus fruits indicating that these beetles have become common agricultural pests. The increasing importance of Scarabaeidae in Egypt has been reflected on the several published works and research programmes conducted on various aspects of this group of insects El Shouny et al. (1987); Ali and Ibrahim (1988); Kamel (1988); Abou Bakr et al (1989); Helmi et al (1989); El Deeb (1992); and Mohamed (1992). The aim of the present thesis is to continue the investigation of some biological aspects which were started in a previous work (Kamel 1988) to study the behaviour of two important species *i.e.* peach cockchafer *Pachnoda fasciata*, and the rose hairy beetle *Tropinota squalida* scop. in order to get further information that may help in planning of the control programmes of these new insect pests. Therefore, the feeding responses of larvae to different germinating seeds in the soil, and adults' response to different types of food and some naturally occurring sugars were investigated. Moreover, the effect of food and soil mixture on the number of eggs laid by females were also studied. In addition the behaviour of adults towards different coloured light was examined.

Observation was also made on some activities of the beetles during the flight season, and some biological processes were described. In addition, preliminary laboratory experiments were carried out to examine the susceptibility of 3<sup>rd</sup> larval instar (*P. fasciata*) and adults (*T. squalida*) to some chemical pesticides that are officially recommended for scarabaeid control. It is hoped that this study may contribute in providing some basic information about these insects which may help in the efforts made to contain the dangers caused by the infestation of scarabaeid pests to various crops in the country.