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INTEGRATED CONTROL OF SOME POMEGRANATE INSECT PESTS

BY

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THESIS

**Submitted in Partial Fulfillment of the
Requirements for the Degree of**

DOCTOR OF PHILOSOPHY

In

Economic Entomology

Plant Protection Department
Faculty of Agriculture, Moshtohor
Benha University

2020

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ABSTRACT

The present study was carried out to survey and evaluate the abundance of common pomegranate insect pests during 2016 and 2017 in Egypt. A total of 8 major pests belonging to 4 insect orders, 24 secondary pest species belonging to 6 orders and 23 minor pests belonging to 4 orders surveyed on pomegranate trees. A total of 63 natural enemies belonging to 30 families, were, also, found as natural enemies. The number of pomegranate aphid *Aphis punicae* recorded 3 peaks on pomegranate leaves in in the two seasons. The number of whitefly *Siphoninus phillyreae* recorded 2 peaks on pomegranate leaves in the two seasons. The percentage of parasitism in pomegranate aphids recorded 3 peaks in 2016 and 2 peaks in 2017. The number of *V. livia* eggs recorded 2 peaks in the two seasons. The number of thrips recorded one peak in 2016 and 2 peaks in 2017. The number of mealy bugs recorded 3 peaks in the two seasons. The number of soft scale insects recorded 2 peaks in the two seasons. 7 insect species of Lepidoptera were surveyed after emergence from the pomegranate fruits through the two seasons. Starting of infestation by *Idaea mareotica* Draudt on pomegranate fruits from May till June through the two seasons. Starting of infestation by *Bactrocera zonata* Saunders and *Ceratitidis capitata* Wiedemann on pomegranate fruits from August till October through the two seasons. Two signs of infestation by

Ectomyelois ceratoniae Zeller on pomegranate branches and fruits. Chemical and agricultural control were effective treatments for controlling *Synanthedon myopaeformis* Borkh during the two seasons. Biological control method with the egg-parasitoid *Trichogramma evanescens* play an efficient role for management of *V.livia*, infestation. Applying the winter service methods reduce the number of pomegranate insect pests infesting pomegranate fruits.

Key words: pomegranate, survey, *Virachola livia* Klug, *Aphis punicae* Passerini, *Siphoninus phillyreae* Haliday, *Scirtothrips aurantii* Faure, *Haplothrips* sp , *Icerya aegyptiaca* Douglas, *Icerya seychellarum* Westwood, *Planococcus citri* Risso, *Hemiberlesia lataniae* Signoret, *Saissetia oleae* Olivier, *Idaea mareotica*, *Bactrocera zonata* Saunders, *Ceratitis capitata* Wiedemann, *Ectomyelois ceratoniae* Zeller, *Synanthedon myopaeformis* Borkh , *Trichogramma evanescens* Westood.