ABSTRACT

EMERGENCE PERIOD AND POPULATION FLUCTUATION OF CHERRY FRUIT FLY (*Rhagoletis cerasi* L.) (Diptera: Tephritidae) IN AYDIN PROVINCE AND EFFICACY OF DIFFERENT TRAPS IN TRAPPING

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M.Sc. Thesis, Department of Plant Protection
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2014, 45 pages

It was aimed in this study that emergence time and population fluctuations of Cherry fruit fly (*Rhagoletis cerasi* L.) in Kirazlı (Kuşadası), Başçayır (Köşk), and Aşağı Yakacık (Nazilli) in Aydın province. Additionally, efficacy of the different attractants in traps was studied.

Studies were conducted in the years 2013 and 2014 through vegetation period in the orchards which have at least 50 Ziraat 900 variety of cherry trees in each. A preliminary study was conducted in 2012 prior to the study. It was observed that the emergence of the pest population and occurence of the cherry fruit fly in the orchards. Population emergence time and population fluctuations were determined by means of the traps in the years of 2013 and 2014, and efficacy of different type of traps was compared each other.

As a result, it was found out that the first adults were catched on the traps generally in May when the colour change begin on the cherry fruit when it was yellow in colour. Total number of the fly on the traps was 57 and 82 flies on Rebel+ ammonium acetate in 5 % and ammonium acetate in 5 % + yellow colour, respectively. It can be suggested that the traps with ammonium acetate in 5 % + yellow colour was more effective. In addition, the traps with ammonium acetate in 5 % + yellow colour were more durable against to harsh environmental conditions and climatic changes comparing to Rebel+ammonium acetate trap. It was observed that the population duration and population levels were different from one to another orchards where the study was conducted as a result of different environmental conditions such as climatic and seasonal differencies. However, trap experiments revealed that mass trapping could help to control the pest

population. Mass trapping technique could be applied by growers easily, and it can be suggested the technique could have a remarkable potent in the pest control.

Key words: *Rhagoletis cerasi*, mass trapping, biotechnique control, organic production.