

ABSTRACT

DETERMINATION OF POPULATION CHANGES OF SOME SIGNIFICANT COTTON PESTS AND NATURAL ENEMIES IN AFTER-CROP COTTON (*GOSSYPIUM HIRSUTUM* L.) VARIETIES OF AYDIN PROVINCE

Savaş KILIÇ

M. Sc. Thesis, Department of Plant Protection

Supervisor: Associate Prof. Dr. İbrahim GENÇSOYLU

2014, 59 pages

This study was carried out in Söke district of Aydın province in 2012-2013 in order to determine of population changes of some significant cotton pests and natural enemies in after-crop cotton (*Gossypium hirsutum* L.) varieties. In the study, May 373, Gloria and Flash cotton seeds were commonly used. At the end of the study, in 2012, *Bemisia tabaci*, *Frankliniella* spp. and *Liriomyza trifolii* were detected in maximum density and regarded as significant statistically while in 2013, *Aphis gossypii*, *Tetranychus* spp. and *Frankliniella* spp. Reached to the maximum density in May 373 and regarded as significant statistically. Pest densities were observed in May 373 at most, then in Flash and Gloria in lower densities. As for natural enemy densities, while the highest natural enemy density, the individuals belonging to the order Coleoptera were observed in May 373 and Flash at most, Gloria followed them. For the individuals belonging to the order Heteroptera, the maximum density was in May 373 and then Flash and Gloria followed it. In the order Neuroptera, a difference was not observed statistically among ranges in terms of density. At the end of the study, no difference was found in fiber fineness, fiber length, uniformity and elasticity in both years in terms of highest yield rate while resistance was regarded as significant and the feature of the most resistant fiber was in Gloria in both years, no difference was found among May 373 and Flash. As a conclusion, it became evident that the after-crop cotton might be planted following wheat and some ranges with more hairs used might be used within integrated control in fighting with pests.

Key words: After-crop Cotton, Pests, Natural Enemies