Interaction effects between time and cultivar on the parasitism rate of the safflower fly, Acanthiophillus helianthi Rossi (Dip.: Tephritidae) by Ormyrus gratiosus

Z. Doosti1, H. Abbaspour2 and A. Askarianzadeh2

1- Department of Plant Protection, Faculty of Agricultural Sciences, Razi University, Kermanshah, Iran, zahradustiy@gmail.com 2- Department of Plant Protection, Faculty of Agricultural Sciences, Shahed University, Tehran, Iran

Safflower fly, Acanthiophillus helianthi is one of the important pests of safflower in the world that every year caused a lot of damage to this product. In Iran extent of damage by safflower fly on the different cultivars is estimated between 30-70%. Larvae of this pest after hatching from the egg enter the boll and they start feeding safflower seeds. Using parasitoids as a one of the best methods of IPM is applied throughout the world. Insect of Ormyrida family are a small group and belongs to the Chalcidoidea superfamily with 126 species. Larvae of this family are individual and external parasitoid. In this study, interaction effects between time and cultivar on the parasitism rate of safflower fly by Ormyrus gratiosus was evaluated in the research field of Shahed University. The study was performed in randomized complete block design with four replications. Experimental treatments consisted of seven safflower cultivars including Zarghan, Padideh, Goldast, Varamin 295, Pourad, Acetoria, Mec 163. Sampling was performed once every seven days and comparative analysis of the data was performed using Kruskal valis. The highest percentage of parasitism was observed on 12 July on the Mec163 and Varamin cultivars with 12.35%. On 30 June, the lowest level of parasitism was observed in all cultivars as 4.95%. Parasitism rates were not statistically different in the first, second and third weeks of sampling. Also in fourth and fifth weeks parasitism rate was not significantly differenced. Parasitism rate in other weeks were significantly different. Among the different varieties, Zarghan with Padideh, Mec163 with Varamin cultivar, PI with Acetoria and Varamin cultivars and Varamin with Acetoria cultivar showed no significant difference, but there was significant difference among other cultivars.