

**Project Title** : Relationships Between Aphid Species and Their Natural Enemies on Citrus in Izmir Province

**Start /End Date** : 2005-2008

**Supporting Body** : GDAR

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**Summary** : This research was conducted to determine aphid species, their natural enemies and relationships between them in the town of Gumuldur and the Seferihisar district, which are the most important tangerine production and exportation areas of Izmir province, between the years 2005-2007. *Aphis gossypii* Glover, *A. spiraecola* Pagenstecher, *A. craccivora* Koch, *Toxoptera aurantii* (Boyer de Fons.) and *Myzus persicae* were determined as aphid species. *Coccinella septempunctata* L.; *Adalia bipunctata* L.; *Hippodamia variegata* (Goeze); *Oenopia conglobata* (L.); *Coccinula quatuordecimpustulata* (L.); *Propylaea quatuordecimpunctata* (L.); *Scymnus* spp. belonging to Coccinellidae (Coleoptera); *Crysoperla carnea* (Stephens) belonging to Chrysopidae (Neuroptera), *Aphidoletes aphidimyza* (Rondani) belonging to Cecidomyiidae (Diptera), *Leucopis* sp. belonging to Chamaemyiidae (Diptera) and species belonging to Syrphidae (Diptera) families were determined as predators of aphids. *Aphidius colemani* Vier., *Binodoxys angelicae* (Haliday) *Ephedrus persicae* Frog., *Lysiphlebus testaceipes* (Creson) belonging to Braconidae (Hymenoptera) family were determined as parasitoids of aphids.

Population of aphids started in April in both years and spread out rapidly. However, the aphid population was observed to decrease in direct proportion with the increase in the population of natural enemies. Population of aphids were declined to zero in June without any application of insecticide. This study carried out in cooperation with tangerine producers demonstrated to producers the unnecessary of chemical control against aphids in tangerine agroecosystem.