

**Project Title** : Biological Control Research Possibilities on *Tuta absoluta* (Lep.: Gelechiidae)

**Start Date** : 2011

**Supporting Body** : GDAR

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**Summary** : Even though whitefly (*Trialeurodes vaporariorum* (West.) (Hemiptera: Aleyrodidae), leafminer *Liriomyza trifolii* (Burgess) (Diptera: Agromyziidae), and spider mites *Tetranychus* spp.(Acarina: Tetranychidae) were determined as main pests in tomato growing areas, also by entering our country especially in 2009 *Tuta absoluta* (Meyrick, 1917) (Lep.:Gelechiidae) recently was determined as main pest in some regions.

The pest can cause up to 80-100 % yield losses unless integrated pest management tools are not applied properly. Due to the pest feeding behaviour and resistance to insecticides using alternative control methods should be compulsory. The study will be conducted in protected tomato production in Turkey during the 2011-2012 period.

The aim of this project is to investigate the possibilities of biological control against *Tuta absoluta* (Lep. Gelechiidae). In this context, the indigenous egg parasitoid *Trichogramma brassicae* Bezdenko (Hym.: Trichogrammatidae) of European corn borer (*Ostrinia nubilalis* Hubner (Lep.: Crambidae) common in our region will used. *T. brassicae* activity on *T. absoluta* will be investigated under cover in cage experiments. Besides, general predators *Nesidiocoris tenuis* (Reuter) or *Macrolophus caliginosus* (Wagner) (Heteroptera: Miridae) effectiveness on *T. absoluta* will be also tested in cages under the cover.