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

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Supporting Body: GDAR

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Summary: Even though whitefly (Trialeurodes vaporariorum (West.) (Hemiptera: Aleyrodidae), leafminer Liriomyza trifolii (Burgess) (Diptera: Agromyzidae), 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.