

- Project Title** : An Investigation on the Determination of the Natural Enemies of Citrus Woolly Whitefly, *Aleurothrixus floccosus* (Maskell) (Hom.: Aleyrodidae), Which is Harmful on the Citrus Orchards in Aegean Region, and the Possibilities of Biological Control Utilizing From *Cales noacki* Howard (Hym.: Aphelinidae)
- Start /End Date** : 2000-2004
- Supporting Body** : GDAR
- Leader** : Türkan KOÇLU
- Co-researchers** : Zeynep YOLDAŞ
- Summary** : The Aegean Region is the second which constitutes 14% of total production on citrus growing in Turkey. In this region, insecticide consumption is much lower than other regions. For that reason, natural balance between pests and natural enemies is well protected in citrus orchards. Accordingly, studies on biological control have successfully been conducted. *Aleurothrixus floccosus* causes damages by sucking plant juice and releasing honeydew on leaves. The pest has been tended to become prevalent in the Aegean Region since 1999. *Cales noacki* , which is the most effective beneficial against the pest, has been utilised in many countries. In the course of the field observations, the parasitoid was determined in the Aegean Region, before. However, its population density did not reach to the level which would take the pest under pressure. The study has been conducted by taking into account the chemical applications against *A. floccosus* would destroy the natural balance in terms of other pests if biological control of *A. floccosus* is not supported by parasitoid releases.
- In the course of the study, rearing and releasing of *C. noacki* have been performed. Population fluctuations of the pest and the beneficial have been observed.
- The parasitoid has the ability of parasitism at early larval stages. Due to this, totally 9934 parasitised pupae in the orchard in Karaburun and 5233 parasitised pupae in the orchard in Gümüldür have been released after the occurrence of first instar larvae of the pest in 2002. Parasitization rate fairly increased after releases. *A. floccosus* population has been easily under pressure in both orchards throughout the season. Any other parasitoid except *C. noacki* has been determined during counts.
- In 2003, studies have been conducted as parasitoid rearing and field counts. Because of satisfactory parasitism was found in the orchards, where parasitoid releases had been performed in 2002, no parasitoid release was made in 2003. Releasing study was only performed in Muğla Province by including new orchards infested with the pest. In the orchards where the parasitoid has been released, *C. noacki* has kept the pest under pressure, easily.