

**Project Title** : Integrated Pest Management Studies in Olive Orchards of Aegean Region, Turkey

**Start /End Date** : 1995-1997

**Supporting Body** : GDAR

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**Summary** : This study was carried out on olive scale (*Parlatoria oleae* Colv.)'s parasitoids and their population densities in spraying olive orchards against Olive fruit fly (*Bactrocera oleae* Gmel.) in 1997 and 1998. This study was conducted in Balıkesir-Edremit, Manisa-Akhisar and İzmir- Gaziemir and Bayındır. In addition to this study, Poligor 40 EC and Decis ULV 1.5 were investigated against olive fruit fly (*Bactrocera oleae* Gmel.) as aerial ULV bait-spraying at olive area in Balıkesir-Ayvalık.

The olive scale was found at a low population level in Balıkesir-Edremit and İzmir-Bayındır in 1997. On the other hand, the pest was found at a high population level at the beginning of the season in İzmir-Gaziemir. The pest population was decrease towards at the end of the season due to increasing of the parasitism ratio. Olive scale's parasitoids were found at a low population level and the pest population was higher in Manisa-Akhisar than other olive orchards.

Olive scale gave two generations all over the olive orchards and over wintered at the 2. and 3. instar larvae stage or female without egg in 1998. The pest's population density was found at a low population level all over the year in Balıkesir-Edremit and İzmir-Bayındır. So, it wasn't need to spray during the year. Although high level parasitism ratio at the larvae and female stage, the pest was showed a high population level at the beginning of the season in İzmir-Gaziemir. So it wasn't need to spraying.

The parasitism wasn't recorded at the larvae stage and the low level parasitism ratio was found at the female stage in Manisa-Akhisar. Especially, when the pest was began to pass to the fruit at the beginning of the September, the table olive varieties have need to spray with an appropriate insecticide.

As for the results of the aerial ULV bait spraying which was maintained in Balıkesir-Ayvalık against olive fruit fly (*Bactrocera oleae* Gmel.) in 1997 by using Decis ULV 1.5 and Poligor 40 EC 91.30% and 73.91% effectiveness were obtained respectively. The biological effects of Hektion 95 ULV, which was used as a control insecticide was found as 86.95%.