

- Project Title** : Determination of pests, diseases and weeds in thyme fields in Denizli and Manisa Provinces and research on the control of important ones
- Start Date** : 2013
- Supporting Body** : GDAR
- Leader** : Fatma IŞIK
- Co-researchers** : Dr. Yıldız SOKAT, Seher TANYOLAÇ, Güliz TEPEDELEN, Ceren KARAGÖZ, Çiğdem YILMAZ
- Summary** : Thyme (*Origanum* spp.) takes first place among the medicinal and aromatic plants produced in Turkey. The production amount of Thyme has been gradually increased to an important ratio in Turkey's medicinal plant export by cultivating species belongs to the *Origanum* genus. Studies on pests and beneficial organisms occurring during vegetation in thyme plantations becoming wider are in a limited number. Only the pests and beneficial insects have been determined during these studies. Neither population dynamics nor damage level of key pest has been investigated. Although, no data is available on diseases and weeds, plant protection problems related to root rot and weeds have been delivered to the Institution by extensionists and growers. It is considered that plant protection problems may economically cause crop loss in thyme like other plants. It is aimed that the pests, diseases and weeds on thyme will be determined and suitable control methods will be searched. For this purpose, survey studies will be carried out in Denizli and Manisa Provinces Salihli in 2013. Studies on the control of important pests will be conducted in 2014 and 2015. In the first year, the studies will be carried in Denizli (Çal, Merkez, Güney, Akköy, Bekilli, Buldan ve Tavas) ve Manisa (Salihli). Species of pests, diseases and weeds will be identified and their densities and distribution will be determined during survey studies. Pests and beneficial insects will be determined by beating and plant samplings from thyme plantations. Isolation from infested plant samples determined during surveys, identification of fungal diseases and pathogeny tests will be conducted. Weed species and densities will be determined in seedlings and fields by frame method. As a result of survey studies, the key pest will be decided. Population density and fluctuation of the key pest, natural enemies and their efficacy will be found. Consequently, critical biological stages, which are essential for the control of the pest, will be determined. Studies on the control of important fungal diseases will be carried as a result of the surveys. Weed control strategy will be decided according to the species to be determined.
- The study is considered to solve the pest problems and enlighten the most suitable control methodology as a fundamental research. It is expected that the quality and quantity of thyme increase, whereas the standardisation of final product will be accomplished. If necessary, technical instruction and standard test method will be prepared, and technicians and growers will be trained.