

**ABSTRACT****ELEMINATION OF FIG MOSAIC DISEASE AGENTS BY THE METHODS OF SHOOT TIP AND THERMOTHERAPY AND TESTING OF SARILOP AND BURSA SIYAHİ FIG PRODUCTION MATERIAL BY ONE STEP RT-PCR**

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Fig (*Ficus carica* L.) is one of the fruit species that is economically important for our contry and Aydın region. A significant increase is observed fort he production of seedlings of serving Bursa Siyahı type and dried Sarılop which is an important commercial kind in recent years. It has been widely reported that the fig mosaic disease is existing especially in subtropical and temperate climate. Mediterranean countries and everywhere that fig production is made. The typical symptom of the disease involved plants are scattered yellow and gren spots on the young leaves. Fruit and leaf losses cause the economic losses when severe mosaic symptoms are observed. Fig Mosaic Disease can be transported to the healthy plants with the production materials. Therefore, one of the most effective ways of protection from the Fig Mosaic Disease is the obtain of the production materials which are purified viral agents. In the clonal production of many plant species the obtainment of the virus free plants with the use of meristem and shoot tip culture provide opportunities to the practise of productin of purified fig seedlings from the fig mosaic disease agent. However, the viral factors which cause the determination of the viral factors which cause fig mosaic disease and possibility of making sequence analysis the moleculer tests which shows purification of the viral elements that are produced from purified fig production materials couldn't be applied. The obtain of the Sarılop and Bursa Siyahıvirüs free fig propagation material of with thermotherapy and shoottip and which are tested with the One Step RT-PCR is the aim of this study. For this purpose thermoteraphy is applied to the tip of the culture of the rootstocks of the transmitted Sarılop and Bursa Siyahı fig with the One Step RT-PCR with FMV, FMaV-1, FMaV-2, FBV-1 using the primers of the fig viral agents

, Fig Mosaic Virus (FMV), Fig Mosaic associated Virus-1 (FMaV-1), Fig Mosaic associated Virus-2(FMaV-2), Fig Banda Virus-1 (FBV-1), Fig Leaf Mottle associated Virus-1 (FLMaV-1),Fig Leaf Mottle associated Virus-2 (FLMaV-2), Fig Cryptic Virus (FCV), Fig Latent Virus-1 (FLV-1), Arkansas Fig Closterovirus-1 (AFCV-1). The obtain of the plant explants of rootstocks are tested with the One Step RT- PCR whether they are free from the viral agents (FMV, FMaV-1, FMaV-2, FBV-1).With the result of this test except two identified FBV sample explants, the other elements with FBV-1 the elimination of other agents have been identified.

**Key Words:** Fig, *Ficus carica*, fig mosaic disease , thermotherapy, One Step RT-PCR, plant tissue culture.