

- Project Title** : Researches on Virus-free Pre-basic Production Material in Some Figs Cultivars and Production of Certified Seedlings
- Start Date** : 2014
- Supporting Body** : GDAR (General Directorate of Agricultural Research and Policy)
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- Summary** : Turkey meets about 26% of world fresh fig production and 59% of dry fig production. With the advantage of being the most important fig producer in the world, Turkey is also the leader in dried fig production and its exportation. Besides, “Bursa Black” is the highest quality black fig cultivar in the world, recives an increasing demand from European countries because of its extraordinary taste, hard fruit structure and long shelf life. The most important production area of the Sarılop variety, which consist more than 90% of fig production Aydın province with its unique microclimate. Fig mosaic disease reduces growing potential of this key export product. Since fig production facilities are established without true to type and healthy production material, quantity and quality of product are affected negatively. In order to overcome this problem, certified nursery are produced. This requirement is of importance for our country which want to be membership to European Union. To carry out the production of certified nursery, base material must be produced and protected for these species. In this project, we aim to propagate and protect stock material from registered varieties of figs species that are important for our region and realize nursery propagation ready for certification from present stocks. To achieve this aim, true to type fig varieties which are present in the garden of “Erbeyli İncir Araştırma İstasyonu” will be tested with RT-PCR method in terms of virüs diseases. After RT-PCR tests, scions will be taken from trees which are detected that are free from virus diseases and these scions will be transferred to screen house. The application of meristem culture technique in combination with heat treatment (thermotherapy) is of great and economic importance in eliminating viral pathogens from a wide range of plant species. Therefore, for eliminating of viruses, it will be applied thermotherapy and meristem culture to the shoots infected with viruses. *In vitro* plantlets obtained from meristem culture will be multiplied and then these plantlets will be tested in terms of viruses. *In vitro* plantlets which are free from viruses will be acclimatized to wire greenhouses. It also plays an active role in the spread of figs infectious viral agents will be carried out to determine the vectors.