Title	Determination of the *Phytophthora* species causing root and crown rot on pomegranate trees in Antalya and Muğla provinces and the susceptibility of some pomegranate cultivars against the disease
Number	TAGEM-BS-15/08-09/02-16
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Budget	40.000 TL
Periods	01/01/2016 - 31/12/2019
Organization of Funding Sources	General Directorate of Agricultural Research and Policies

Abstract:

The objectives of this study are to determine the *Phytophthora* species causing drying of pomegranate trees in Antalya and Muğla provinces where approximately half of pomegranate production of Turkey is done, and to determine the susceptibility degrees of some pomegranate cultivars against the disease.

In recent years, our country has experienced a large increase in pomegranate production. However, the long-standing problem about drying of pomegranate trees has occurred and complaints regarding this problem have been taken from the cultivators in this direction. However, there is not enough study in our country and the world about the detection and solving of this problem. Shortcomings in this area will have been resolved by this study significantly.

In this project, surveys will be carried out in important pomegranate fields and diseased plant and soil samples will be collected. Then isolation and identification studies will be performed. Differences of virulence among the species will be revealed by pathogenicity tests. *Phytophthora* species were identified on the basis of the morphological characteristics and by the analysis of sequences of the rDNA. The differences of susceptibility of some pomegranate cultivars to the disease will be investigated.

At the end of this study, *Phytophthora* species causing pomegranate decline will be determined and the new pathogen species of pomegranate trees will be determined and these data will be presented in science. Also important data regarding the use of resistant rootstocks and cultivars, the most effective method in the control of root pathogens will have been obtained.

This study will be carried out my doctorate science thesis under the supervision of prof. Gürsel Karaca who works at Süleyman Demirel University, Agricultural Faculty, Plant Protection Department.