



PROJECT TITLE	Determination of the Effects of Isolated Rhizosphere Bacteria on Drought in Gala Apple Varieties in Konya and Karaman Provinces
PROJECT NUMBER	TAGEM/BBAD/A/21/A1/P3/2427
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INSTITUTE	Bahri Dağdaş International Agricultural Research Institute
START AND END DATE	01/01/2021- 31/12/2022
PROJECT RESOURCE AND BUDGET	TAGEM – 60000 TL
PROJECT DEPARTMENT	* Department of Horticultural Research
SUMMARY: <p>Rhizobacteria that promote plant growth (PGPR) have a number of benefits and effects directly and indirectly to the bacteria that have acquired habitat in the soil surrounding the plant root zone. Many studies have shown that PGP rhizobacteria prevent excessive ethylene formation in plants and thus reduce water stress.</p> <p>In the light of this information, the aim of the study was to determine the effectiveness of rhizosphere bacteria from different plant root regions obtained from Konya and Karaman provinces against drought stress in apples. The soil structure in these regions has not been cultured and has grown in completely natural conditions and is especially arid, salty and calcareous structure. For the purposes of the project, isolates will be selected and activities of rhizobacteria against water stress in the plant will be determined by potting trials in the greenhouse. Divided plots in trial coincidence blocks will be set up with 3 repetitions according to trial pattern. In the case of water restriction in natural conditions, the effects of plants against this stress will be evaluated through some growth, development and physiological parameters.</p> <p>The data to be obtained as a result of the study is of great importance for Konya region. There is a drought in the region and various research is being done on minimizing the stress caused by drought in plants. Within the scope of the project, the possibility of using rhizosphere bacteria working in favor of the plant to minimize drought stress will be determined.</p> <p>The drought Testing Center, established at Konya Bahri Dagdas International Agricultural Research Institute, continues its research activities. The center focuses more on drought-resistant plant breeding. The project will bring a new approach to drought studies. This study will be an important step both for the Institute and the region. Biotic/abiotic stress factors affecting production in our country and biological struggle studies are still limited. It is thought that if successful results are achieved, a bioformulation study will open the way, and this is important for both the country and the region.</p>	
KEY WORDS: Root, Drought, PGPR, Rhizobacteria, Rhizosphere	



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