

Title	The Investigation Possibilities of Using <i>Anabaena</i> sp. as biofertilizers in citrus seedling growing
Number	
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Abstract:

With the rapid increase in world population the demand for foodstuffs were increased. For this reason, fertilizer use in agriculture in order to get more yield has become a major practice. Today, the most widely used fertilizers are chemical fertilizers. But as a result of incorrect use of fertilizers, salinity of agricultural lands were increased, organic matter was decreased and the structure of soil, which is an ecosystem consisting microorganisms, was damaged. For this reason, in recent years, new approaches like “good and sustainable agricultural practices” has become more popular. Organic fertilizers has become very important for increasing the productivity and sustainability, improvement the physical and chemical structure of the soil, protection of human health, prevention of environmental pollution. Between organic fertilizers, biofertilizers which were extensively studied in recent years, play an important role. Biofertilizers also increases the productivity by providing the intake of organic and mineral fertilizers by plants more effectively. Between biofertilizers, suspensions containing unicellular microalgae (blue-green algae, green algae etc.) play an important role.

The aim of this study is to investigate the potential of different biofertilizers in citrus seedling growing. In the project, sour orange rootstock (BATEM 360) and ‘BATEM Fatihi’ (BATEM 97) orange cultivar will be used as a material. For different biofertilizer treatments, determined dosages from blue-green algae (*Anabaena* sp.) cultivated in optimum nutrient conditions, and from chemical fertilizers, will be treated to the seedlings. There is no fertilizer will be applied to the control group. Biofertilizer treatments will be done in three different period which are starting from seedling transplantation period, after grafting and when the grafted plants reaches 15 cm long. Then, some measurements will be performed on the plants (root length, dry and fresh weight, stem diameter, plant height etc.) which are starting in the beginning of seedling transplantation, 2 months interval till the seedlings reach the grafting stage, one month interval after grafting and at the end of the research. Growing medium and leaf analyses will be performed in the beginning and at the end of the research. Research will be planned as randomly block design and data will be evaluated by analysis of variance.