

Title	The Effects of Different Growing Media and Irrigation Water Salinity Levels on Yield and Quality Characteristics of Cut Flower Rose Production
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Abstract: Irrigation water and its salinity content is one of the important factors limiting growth in crop production. Ornamentals, especially cut flowers, are grown in greenhouses. Fertilizers and chemicals used in greenhouse extensively causes built up of salts in the crop root zone resulting in lower quantity and quality in production. In recent years, greenhouse growers show a tendency towards soilless culture as a result of pollution of greenhouse soils and chemicals used against soil borne disease and pest. MeBr and 1,3 Dichloropropen, which were used against soil borne diseases and weeds, has adverse effects on environment and human health. Therefore, its use was banned in 2008. This has also increased growers' tendency to use soilless culture. Ornamentals are usually irrigated with high quality irrigation water. However, water resources are decreasing and their quality is getting worse. Therefore, low quality irrigation water could be used also in ornamentals as it is used in other cultural crops. There are few studies about salt tolerances of ornamentals. Additionally, inconsistencies exist between published research results. For example, one paper classifies soil as salt tolerant whereas another one classifies as highly salt sensitive. The aims of this project are to determine the growth, yield and quality characteristics as well as crop water requirements of rose when irrigated with saline water. Also, the threshold value of rose against salt and the yield decrease for additional salt increase would be determined. Additionally, whether the mix of perlite, zeolite, pumice and peat could be used for growing media would be examined. The study will be carried out in a glasshouse located in Bati Akdeniz Research Institute, Department of Ornamental and Medicinal Plants. Four different growing media, i.e. (coconut tuff+perlite:50:50; perlite+zeolite: 75:25) and five different salinity levels, i.e. (control (1.5 dS m⁻¹); control +1.5 dS m⁻¹; control+3.0 dS m⁻¹; control+4.5 dS m⁻¹) will be examined and their effects on growth, yield, quality and water requirements of rose will be determined.