This study was conducted in 2007 and 2008 in order to determine the effects of irrigation frequency on the yield and quality parameters of dwarf trees of the apple cultivar ‘Gala, Galaxy’ in the first and second year of cultivation. Irrigation water was applied at 3-, 5-, 7-, and 10-day intervals as much as the amount of water consumed from the field capacity. Statistical analysis revealed that the effects of irrigation frequency on yield were significant.

Since the trees used in the experiment showed mainly vegetative growth, the effects of irrigation frequency on the fruit quality characteristics varied. Irrigation water amount was applied as 355.7–446.5 mm and 359.2–538.9 mm to the experimental treatments in 2007 and 2008, respectively. The evapotranspiration measured was in the range 400.7–491.5 mm in 2007 but in the range 440.2–600.5 mm in 2008, while the yields in the same years ranged from 1.54 to 2.84 t ha⁻¹ and from 2.61 to 6.06 t ha⁻¹. Water use efficiency varied between 2.40 and 4.80 t ha⁻¹mm⁻¹ in the first year of the experiment but between 3.45 and 7.08 t ha⁻¹mm⁻¹ in the second year. The I2 treatment, in which the highest yield and water use efficiency were recorded in both years of the experiment under the experimental conditions, was determined as the irrigation scheduling.