

Effect of salt stress caused by sodium chloride on mineral elements and soluble sugars in three commercial cultivars of pomegranate

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The effect of salinity stress on cuttings of three commercial cultivars "Alak torsh, Malas torsh, Malas shirin" of pomegranate for determination salinity resistance was studied in this experiment .

After rooting of cuttings , they were planted in the plastic pots contained sand: perlite (1:1) medium and irrigated with complete Hoagland 's solution immediately. After three weeks , the plants were treated with different concentrations (0 , 40 , 80 and 120 meq / lit) of sodium chloride solution. These treatments continued during 80 days with irrigation water. Finally , uptake and transport of ions (Na,K,Ca,Mg,N and Cl) and soluble sugars in three cultivars were measured.

With increasing sodium chloride concentration in irrigation water , the amount of Na , Cl and K in the tissues increased but amount of Ca , Mg and N of the tissues decreased and differences among uptaking and transporting of ions in three cultivars weren 't significant

With increasing of sodium chloride concentration in irrigation water , the amount of soluble sugars decreased.