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The Trend of Mineral Uptake by GF677 Shoots in Response to Different Concentrations of Sodium Chloride under *In Vitro* Conditions

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In this study, the trend of mineral uptake by GF677 (*Prunus persica* × *Prunus amygdalus*) shoots in response to salinity stress was studied under *in vitro* conditions. Shoots of GF677 rootstock were subcultured into the Murashige and Skoog (MS) medium containing1 mg/l BA (6-Benzyladenine) and 0.1 mg/l NAA (naphthalene acetic acid) at different concentrations [Zero (control), 40, 80 and 120 mM] of sodium chloride (NaCl) with four replicates for six weeks. Mineral uptake was measured in the GF677 shoots every two weeks. GF677 rootstock continued N and K uptake at concentrations of 40 and 80 mM until six weeks. Phosphorous uptake continued in the control and 40 mM treatments until six weeks. Magnesium uptake decreased in the concentrations of 40, 80 and 120 mM. Iron and Zn uptake decreased in the all salinity concentration. Sodium and Cl uptake increased by increasing salinity levels during the six weeks culture. In general, due to the antagonistic effects of sodium chloride, GF677 shoots could continue to uptake nitrogen, potassium and calcium until the sixth week of culture (except for 120 mM) but did not have the ability to uptake magnesium, iron, and zinc.
Keywords: GF677 rootstock, Macro elements, Nitrogen, Salinity stress.

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