

Effect of sodium chloride on absorption and transportation of some elements in five Iranian cultivars of melon (*Cucumis melo* L.).

Jamal javanmardi, H. Lessani and A. Kashi .

Ph.D student and professors of horticulture dept. of agriculture faculty, university of Tehran .

Five Iranian native cultivars of melon (*Cucumis melo* L.) namely: "Abbas shuri", "Suski", "Zard e karaj", "Khaghani" and "Tashkandi" were tested for determining the effects of sodium chloride on absorption and transportation of mineral elements and evaluated for salt tolerance.

Hogaland solution plus four salinity levels (0, 2.5, 5 and 7.5 g/l NaCl) was used in a greenhouse experiment. By increasing salinity level, the content of Na^+ , Cl^- , Na^+/K^+ ratio increased, but K^+ , Ca^{2+} and Mg^{2+} decreased in leaf and root tissues. The content of Cl^- (except for "Tashkandi"), K^+ , Ca^{2+} and Mg^{2+} in leaves were higher than in roots, but Na^+ , Na^+/K^+ ratio in leaves were lower. The ratio of Na^+/K^+ in leaves of "Abbas shuri" and "Khaghani" was in the highest level and decreased in "Tashkandi", "Zard e karaj" and "Suski" respectively .

The results indicate that cultivar "Suski" has the highest salt tolerance .