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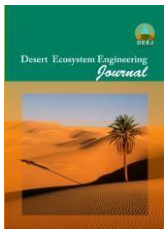

The effect of salt water and magnetic water on germination Atriplex (*Atriplex lentiformis)*

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Abstract

This study was conducted to investigate the effect of magnetizing fresh and saline water and seed on *Atriplex lentiformis* seed germination. This study was done in 2011 at the Yasuj University Lab and the study followed completely randomized factorial design. The treatments were as follows: water factor at 5 levels (0, 2/5, 5, 7/5 and 10 KGauss) salinity at four levels (0, 100, 200, and 400 mM sodium chloride and calcium chloride with proportion of one-one), and two types of seed (with normal and magnetized seeds) with four replications. The results of variance analysis revealed that there was a significant difference at at 0/01 for most of properties and for seeding weight the significant difference was shown at 0/05 level. The results also indicated that magnetic field level of 7.5 K Gauss was the most effective on saline water and it increased the figures of measured parameters. It showed that salinity and magnetized seed mutual interaction effect had significant difference on germination speed, seeding weight, and seed vigor properties. Among magnetized seed treatments, 7/5 K Gauss had a better performance in comparison with other treatments. There were significant differences among mutual interaction of water and magnetized seed of *Atriplex lentiformis* at 0/01 level in most studied properties. In general, it can be concluded that treatment of magnetized at 7/5 K Gauss is the most effective treatment in terms of effect on measured parameters.

Keywords: Atriplex, Germination percent, Salinity, Kilo Gauss, Magnetic Field.

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