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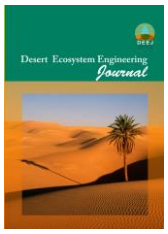

The effect of salinity on germination and seedling growth of two species of annual medicse (*Medicago scutellata, Medicago polymorpha*)

A.R. mahmoodi[1]*, E. bijanzadeh[2], A.R. zareiee[3]

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Abstract

Salinity is one of the main osmotic stresses on growth and production of plants in arid limit. The use of salt endurance species in the restoration and development rangelands, particularly in arid is very important. Given the importance of annual medics in the restoration and development rangeland and the low awareness level of understanding of this species to salinity, This study aimed to evaluate the endurance to salinity during germination were annual medics. Salinity at the germination stage for the creation of Sodium chloride (Nacl) and salinity (0 (control), 0/25, 0/5, 0/75, 1 and 1/25 MPa) was used. Components, including germination percentage, speed and uniformity of germination and seedling growth components, including the shoot and root Length, dry weight root and shoot and their ratio under salt stress was being investigated. The results showed that with increasing concentration of salt in the germination percentage, speed and uniformity germination shoot and root Length and dry weight decreased in both species. The significant differences in the percentage of germination, root and shoot dry weight in salinity were observed among species. In this study, the increased levels of salinity, germination percentage decreased with the decrease in the value of *M. scutellata* the control treatment to 1/25 MPa Nacl treatment was reduced by 99 percent. *M. polymorpha* reduction of 96% in comparison to the control was observed in 1.25 MPa. The results showed that the species *M. polymorpha* and *M. scuteellata* is more resistant to salinity at the germination stage.

Keywords: salinity, components germination, seedling growth parameters, *Medicago scutellata*, *Medicago polymorpha*.

1. MSc. Student, Natural Resources College of Darab, University of Shiraz, Shiraz, Iran Mahmoodi_150@yahoo.com
2. Assistant Professor, of Natural Resources College of Darab, University of Shiraz, Shiraz, Iran ehbijanzadeh@gmail.com
3. Ph.D. Student, of Natural Resources College, University of Tehran, Karaj, Iran ar_zareiee@yahoo.com