

## Study of Salt Stress on Growth and Seed Germination Specifications of Two Species *Koeleria cristata* and *Panicum turgidum*

Damoun Razmjoue<sup>1\*</sup>, Zahra Zarei<sup>2</sup>

1\*-Assistant Professor, Department of Range and Watershed Management, Department of Natural Resources, Behbahan Khatam Alanbia University of Technology, Behbahan, Iran.

2-Master of Science in range management, Behbahan Khatam Alanbia University of Technology, Behbahan, Iran.

### Abstract

One of the most important problems in rangelands is saline soils which affects plant life and finally the whole ecosystem. Salinity tolerance in various stages of plant life is different. Using plants refractory to salinity and water scarcity is considered as one the most important effective methods in utilization and improvement of hectare utilization in saline lands of dry and semi dry regions of the world. So regarded to importance of soil salinity, germination and establishment of plants, this research is accomplished to study effects of various salinity levels on germination and its related traits in species of *Koeleria cristata* and *Panicum turgidum* in a year (2015) for identifying species resistant to salinity and introducing them to correct and recover saline and dry regions. Species seeds were disinfected one minute by 90 percent alcohol and then they were washed by distilled water. The densities 0,100,200, 300 and 400 mM of NaCl is used to evaluate salinity resistance of aforementioned plants seeds. This test was done completely random in factorial with 5 iteration. Results showed that salinity has a negative effect on percentage of germination, germination speed, radicle length, plumule length, plumule weight and radicle dry weight in both studied species and mentioned traits will decrease by salinity increase. Also, This study showed that tolerance to salinity in species *Panicum turgidum* (Average percentage of germination 26.8%) more than specie *Koeleria cristata* (Average percentage of germination 19.6%).

**Keywords:** Germination Seed, *Koeleria cristata*, *Panicum turgidum*, Salinity Stress.