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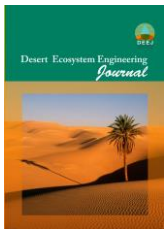

Comparison of the Effects of Salinity Stress on Production and Tillering of Three Rangeland Species in Dessert Ecosystem Puccinellia distans, *Aeluropus littoralis* and *Aeluropus lagopoides*

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Abstract

Abstract: In dessert ecosystem, evaluation of range species tolerance to salinity stress is more and more appreciable for saline rangelands reclamation and forage production. The principal goal of this investigation is the effects salinity stress on production and tillering of *Aeluropus lagopoides*, *Aeluropus littoralis*, Puccinellia distans. The experiment was carried out In a completely randomized design as factorial in seven replications. The studied treatments were included 8 salinity levels (0, 50, 100, 200, 300, 400, 500, 600 Mmol) and three range species Puccinellia distans, *Aeluropus littoralis* and *Aeluropus lagopoides*. In order to soil salinization, irrigation was prepared by adding a combination of Nacl, Cacl2 and Mgcl2 to ratio of 1, 3 and 5 in 8 salinity levels to distilled water and then gradually was added to pots soils until its complete saturation. After ensuring different soil salinity concentration levels, one plant was planted in per pot. Results showed that a significant difference among tillers number, underground biomass, aboveground biomass and total biomass. Mean comparison of different salinity treatments in studied species indicated that by increasing salinity concentration, tiller number, underground biomass, aboveground biomass and total biomass are increases. Also results showed that total biomass weight in control treatment is twice of 50 Mmol salinity levels and several than salinities treatment in studied species. Results showed that P. distans as a tolerant species to salinity stress and *A. littoralis* and *A. lagopoides* as two range species with moderate tolerant to salinity stress can be considered.

Keywords: Salinity, stress, *Aeluropus lagopoides*, *Aeluropus littoralis*, Puccinellia distan.

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