The effect of different treatments onseed germination Characteristics of *Cynodon dactylon* in stress conditions with allelopathic compounds of *Atriplex lentiformis*.

Abstract

The growing trend of population along with the increasing needs of human economy and food regardless of Kulologic power of fields, in the last decades has led to land degradation phenomena. For that reason, some of the necessary measures to modify and improve the degraded lands and take advantage of potential of habitats and lands, especially in desert areas affected by stresses of environmental, edaphic and climatic factors are having accuracy in terms of administrative measures, including the selection of appropriate varieties, determining the location of planting the shrubs, considering the effects of plant allelopathy, etc.In order to investigate the priming on seed germination of *Cynodon dactylon* under stress conditions of allelopathy of triplex lentiviral formis formis *(Atriplex lentiformis)* a study was conducted in the factorial form on the basis of completely randomized design with 4 recur in three separate experiments in Agricultural Research and Natural Resources Center of Zabol in 1392. The first factor in all priming experiments consisted of salicylic acid in three levels (100, 200, 300 mg/L), gibberellic acid in three levels (125, 250, 500 ppm) and potassium nitrate in three levels (0/0 0/1, 0/0 0/2 , 0/0 0/3) and distilled water as a control. The second factor in allelopathy experiment were 5 levels (0, 5, 25, 50 and 75 percent). Experimental results were analyzed using software MCTAT-C and Duncan test. According to the results of analysis of variance the allelopathic stress was statistically significant for all traits of on germination at the level of 0/01 and pre-treatment of potassium nitrate had significant effect only on germination rate at the level of 0/05 and had no significant effect on the length of stipe. The results also showed significant differences in the level of 0/01% between different concentrations of allelopathic extracts and different levels of salicylic acid pretreatment ongermination characteristics. In the investigation of different concentrations of allelopathic extracts and different levels of gibberellic acid pretreatment on germination characteristics the variationanalysis showed that there were significant differences in the level 0/01 and gibberellic acid had no significant effect on the weight of stipe and seed vigor. Among all the used pretreatments, salicylic acid had the greatest impact on germination characteristics of this plant under the studied stress conditions.

Keywords: Atriplex , allelopathic, pretreatment, *Cynodon dactylon*