

EVALUATION OF EFFECTIVE SALINITY ON LEAVES MORPHOLOGICAL CHARACTERS OF ALOE VERA.

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INTRODUCTION: Aloe vera is member of the Liliaceae family and used as a traditional medicine to induce wound healing, and an anti-cancer (findings, et al. 2007). some changes of the growing environment can cause to changes in leaves morphological characters of Aloe vera. with the changes of the growing environment and conditions of plants The constituent and structure of some morphological characteristics change.

MATERIALS AND METHODS: In May 2012 Field trails were conducted in the green house of Agro Industry Shahid Beheshti located in the dezfol of Iran. Treatments were including S1, S2, S3, S4, S5 and S6 that to order 0, 4, 8, 12, 16 and 20 milimhos/cm water with 3 replications that each replications had 4 plant. Precipitation is concentrated in the winter season with a mean annual 400 mm per year. The mean maximum temperature is 49°C in the warmest month in summer and The mean total annual number cooling degree days is 3°C. The frequency of irrigation was according to addition 60mm evaporation. The soil texture is Sandy loam and other properties of soil and water of region were calculated after the samples of soil and water were sent to the laboratory. Data were statistically analyzed, using the SAS software. Significant differences were determined by Duncan test. After Explant Growth Of Embryo, Length Of Root And Stem Were Measured And Comparing.

RESULTS AND DISCUSSION: RESULTS Showed The differences between treatments in leaf dry weight, leaf fresh weight, were not significant. Water salinity affected the number of leaves Produced. Plants of S1, S4, S5 and S6 produced 8.66, 8.66, 8.66 and 8.33 leaves respectively, significantly greater than S2 and S3 plants, which produced 7.33 and 8 leaves, respectively, during the experimental period. The number of leaves produced was similar in treatments S1, S4 and S5. At the individual plant level the differences between S1, S4, S5 and S6 were not significant. Plants of S1 produced leaf width and leaf diameter significantly greater than other treatments but obtained lower leaf length. Some researchers reported that dry matter percentage increased in two Aloe vera cultivars irrigated with 60% seawater, because A. vera known as a xerophil can also continue to grow and reproduce in such stressed environments owing to characteristic 'adaptive physiologies' (Jin, Wang et al. 2007). An increase in leaf thickness of aloe plants with moisture and a corresponding increase in gel production have been reported (Paez, Michael Gebre et al. 2000) .

Keywords: Aloe vera, salinity, morphological characters.



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