



A Study on Germination Rate, Dry Matter Weight and Amylase Activity of *Medicago sativa* L. (alfalfa) under Induced NaCl Stress

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Abstract

Different Omani alfalfa cultivars were exposed to NaCl concentration in the range of 4, 6, 8 and 10 dSm⁻¹ to measure germination, vegetative growth and amylase activity. The results showed moderate tolerance of alfalfa against salt stress. Alfalfa genotypes A215 and A29 appeared to be more tolerant than all other 8 genotypes. Dry matter stress index (DSMI) were calculated which varied from 0.2 to 1.2 with a high index value for 8 dSm⁻¹ than the other NaCl dilutions. The amylase activity was found to be directly proportional to the salt stress. Thus the results showed that alfalfa is moderately tolerant to salinity especially A29 and A215 genotypes, which can be recommended for cultivation in semi arid regions.