

Effect of Drought Stress on the Growth Parameters and Chemical Compounds of *Capparis spinosa* L

Author : Hediat M. H. Salama and Najat Bokhari

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Capparis spinosa L., an important shrub used in traditional as well as modern medicine. In the present investigation, this plant exposed to water deficit stress and possible changes in chlorophyll contents, photosynthesis rate, transpiration rate, growth parameters as well as total flavonoids and total alkaloid were studied. Seedlings subjected to four different water-regimes. Experimental samples irrigated once every week or every second and third week and the control irrigated every day. Drought had adverse effect on height, weight and relative water content of *Capparis spinosa* seedlings. The photosynthetic activity and transpiration rate significantly decreased with increasing drought level. Total sugars decreased to 75%, total protein decreased to 84% and total chlorophyll decreased by 47%. The study revealed that drought is the most important factor enhancing the production of secondary metabolic products. Free proline content significantly increased to maximum 166% compared to the control. Total flavonoids and alkaloids contents of the seedlings grown under treatments 3 increased to 187% and 171% compare to control respectively.