



ORIGINAL ARTICLE

EFFECT OF FOLIAR APPLICATION OF PROLINE ON GROWTH AND ACTIVE COMPONENTS OF *ARTEMISIA HERBA-ALBA* UNDER SALINITY CONDITIONS

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Abstract: This study was conducted in the Lath house of the Department of Horticulture and Landscape, College of Agriculture, University of Tikrit, during 2020-2021 to investigate the physiological effects of Salt Stress and Proline spraying on the mineral content and the active component of *Artemisia herba-alba*. The experiment is designed as a two-factor experiment, the first one is adding Salt (NaCl) with three levels (0, 5 and 10 g L⁻¹) and the second factor included three concentrations of spraying Proline acid (0, 100, 200 mg L⁻¹), a randomized complete block design (RCBD) was used with three replicate. The main results show that adding NaCl with the two levels has a significant effect on reducing the ratio of fertilizer (N-P-K) in the leaves of *Artemisia herba-alba* compared with control (non-spraying) by giving the highest percentages of the significant differences in each percentage of N, P, and K in leaves, which were (2.691, 0.446 and 3.430%), respectively. By comparing these with the lowest concentration of the above elements when adding NaCl at a concentration of 10 g L⁻¹, which were (1.604, 0.293 and 1.636 %), respectively. Spraying with Proline with concentration of 200 mg. L⁻¹ was effects on N, P, and K in leaves by giving the highest concentrations of NPK that were (2.652, 0.406 and 3.153%), respectively.

Key words: NaCl, Camphor, Cineol, Camphene, d-Cymene.

Cite this article

Mohamed Abdulla Ahmed, Ali Farouq AL-Maathedi and Marwan Abdullah ALSanam (2022). Effect of Foliar Application of Proline on Growth and Active Components of *Artemisia herba-alba* under Salinity Conditions. *International Journal of Agricultural and Statistical Sciences*. DocID: <https://connectjournals.com/03899.2022.18.569>