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**Title:** Study the effect of seed priming by plant growth regulators on some biochemical criteria in *Matricaria aurea*

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**Abstract:** Introduction: Currently the use of plant growth regulators for enhancement of seed germination and seedling growth criteria has been increased. In order to investigate the effect of seed priming by Salicylic acid and Ascorbic acid as plant growth regulator on seed germination and seedling growth of *Matricaria aurea* we must study some biochemical criteria.

Method: In this case a completely randomized experiment with four replications was conducted in the plant physiology laboratory of the science faculty of Mohaghegh-e-Ardabili university. Experimental treatments include optimum concentration of Salicylic acid and Ascorbic acid for germination (150ppm from Salicylic acid and 50ppm from Ascorbic acid.)

Result revealed that seed priming by 150ppm from Salicylic acid and 50ppm from Ascorbic acid had enhanced some biochemical criteria such as total soluble sugars and proteins in comparison to the control. Also other biochemical experiments are attempting.

Conclusion: With observation an enhancement in some biochemical criteria, we can utilize some special plant growth regulators to improve seed germination and seedling growth criteria of medical and useful plants.

Key words: Ascorbic acid, Salicylic acid, *Matricaria aurea*, Total soluble sugar, Soluble proteins.

Presentation: Poster