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METHYLE JASMONATE AND SALICYLIC ACID AFFECTED ON THE YIELD AND PHISIOLOGICAL ATTRIBUTS OF ECHINACEAE PURPUREA

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Echinaceae Purpurea L. from Asteraceae famihy is a Prennial and herbaceous Plant that has been recognized as a valuable ornamental – medicinal Plant in most valid pharmacopoeia. Salicylic acid and methyle jasmonate as elicitor regulate a wide range of developmental responses in plants. To study the positive affects of salicylic acid and methyle jasmonate on Echinaceae purpurea yield and its physiological attributes, salicylic acid (0, 1 and 2 mg. L⁻¹) and methyle jasmonate (0, 0.5 and 1 mg. L⁻¹) were sprayed on plants. Results showed a significant effects of treatments on number of side branches, flower fresh weight, root fresh and dry weight. Salicylic acid was significantly affected on number of side branches, number of flowers, flower fresh weight, root fresh weight and carotenoid content. Plant height and total chlorophyll content was affected significantly by salicylic acid treatments as well. The maximum number of the flowers was recorded in 1 mg. L⁻¹ of methyle jasmonate considering obtained results, the maximum flower fresh weight, root dry weight and side branches terminated with flowers was recorded in 1 mg. L⁻¹ methyle jasmonate. The growth of Echinaceae purpurea was improved positively by applying 1 mg. L⁻¹ salicylic acid and 1 mg. L⁻¹ methyle jasmonate.

Keywords: Carotenoids, Chlorophyll, Flowering, Methyle jasmonate, salicylic acid.