

Studies on the effect of plant bio-regulators on growth and floral attributes of German Chamomile (*Matricaria chamomilla* L.) cv. CIM Sammohak

Abhay Singh, Siddharth Shankar Bhatt, Digendra Singh and Yamuna Pandey

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ABSTRACT : Chamomile (*Matricaria chamomilla* L.) is one of the important medicinal plants grown for its valuable flowers from which oil extracted which contains high pharmaceutical value. Plant bio-regulators can be effectively used to enhance both vegetative as well as flowering attributes. Plants were foliarly treated with IAA, GA₃ and NAA at three concentrations (25, 50 and 100 ppm) of each which improved vegetative and floral parameters like, plant height (cm), number of branches per plant, plant spread (cm), stem diameter (mm), days taken to first bud initiation, flower diameter (cm), number of flowers per plant and fresh and dry weight of flowers per plant (g). Among the different treatments, GA₃ at 100 ppm was found to be best treatment for most of the parameters viz., plant height (44.54 cm), number of branches per plant (38.20), plant spread (54.00 cm), days taken to first bud initiation (15.53), flower diameter (2.57 cm), number of flowers per plant (268.93), fresh weight of flowers per plant (35.56 g) and dry weight of flowers per plant (6.96 g), whereas NAA at 100 ppm proved to be the best for stem diameter (6.76 mm). GA₃ @ 100 ppm was found to be the most effective for most of the vegetative and floral characteristics of chamomile cv. CIM Sammohak.

Key Words: German Chamomile, plant bio-regulators, vegetative growth.