

EFFECT OF FOLIAR APPLICATION OF GROWTH REGULATORS ON GROWTH AND YIELD OF ONION (*Allium cepa*)

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A field experiment was conducted at Horticulture Farm of Agriculture and Forestry University, Rampur, Chitwan, Nepal from December 1 to April 30 of 2018/19 to evaluate the effect of plant growth regulators on onion (*Allium cepa* L.). The experiment was laid out in a Randomized Complete Block Design (RCBD) with 13 treatments. Growth regulators GA3 and NAA each at 75, 150 and 200 mg/L concentrations and in combinations were tried at 3 and 7 leaf stages of onion crop in comparison to control i.e., water spray and each was replicated three times. The combined application of NAA 150 mg/L at 3 leaf stage, and GA3 mg/L at 7 leaf stage resulted in highest values for plant height (76.67 cm), number of leaves (11.33), stem diameter (2.19 cm), bulb diameter (7.55 cm), dry weight (69.83 gm) and fresh weight (72.66 gm) while the control treatment resulted in the lowest value for all these attributes. Therefore, the combined application of 150 mg/L of NAA at 3-leaf stage and 150 mg/L of GA3 at 7-leaf stage can be recommended to enhance the plant growth and yield of onion.

Keywords: Gibberellic acid (GA3), Naphthalene acetic acid (NAA), Plant Growth Regulators