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Growth of cotton fibre and ovules enhanced by IAA and NAA under *in vitro* conditions

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ABSTRACT : An experiment was conducted at the tissue culture laboratory of MGM college of Agricultural Biotechnology, Aurangabad (M.S.) during 2013-14 to evaluate the effects of different concentration levels of auxins viz., NAA and IAA on growth and quality of cotton (*Gossypium hirsutum* L.) ovules under *in-vitro* conditions. The experiment was laid out in Completely Randomized Design, 7 different concentration levels of auxins IAA and NAA. Auxins were tried at the levels of 0, 5, 10 and 15 μ M conc. of each in culture of 2 DPA flowers of *G. hirsutum* L using Beasley and Ting (BT) medium. Cultures were maintained for 21 days and fibre length, fibre weight, ovule length and ovule weight were recorded. Different concentrations of auxins significantly influenced development of cotton ovules under *in-vitro* conditions. NAA at concentration of 15 μ M was found significantly superior over rest of the levels of IAA and NAA in case of fibre length, ovule length and ovule weight whereas IAA concentration of 15 μ M was found significantly superior over rest of other concentrations of IAA and NAA for increasing fibre weight.

Key Words : Cotton, Ovule culture, IAA, NAA, Ovule length, Weight fibre length, Weight

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