



The effect of Plant Growth Regulators on Indirect Regeneration of Carnation (*Dianthus caryophyllus*)

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Abstract

Ornamental plants, especially cut flowers are known as the valuable and profitable industry. Introducing new cultivars is an important factor in the flower market. Carnation (*Dianthus caryophyllus*) is one of the most important cut flowers. Due to limitations of classical breeding methods, using new molecular techniques to create economic characteristics is essential in Carnation. In this study, callus was produced through leaf explant of (*Dianthus caryophyllus* cv Piaff). The calli were cultured on MS media containing different concentrations of BA and NAA for shoot induction. Samples were kept in a growth chamber at $25 \pm 1^\circ \text{C}$ with a 16/8 h photoperiod. The highest rate of regeneration and number of shoots were obtained in medium containing 3 mg.l^{-1} BA + 0.3 mg.l^{-1} NAA after 30 days.

Keywords: BA, Indirect regeneration, Carnation, *Dianthus caryophyllus*, NAA