

STUDY OF EFFECTS OF IBA, IAA, NAA, AND BA ON ADVENTITIOUS ROOT FORMATION OF SINGLE NODE CARNATION EXPLANT

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Carnation is ornamental plant with a high economical value. It is cultivated in the majority of ornamental plant and flower producing countries. Numerous efforts have been made world wide, in order to expand the cultivation of this valuable species. Today the production of novel and improved varieties are the result of these researches. Use of tissue culture techniques along with genetic engineering and biotechnology methods are the major steps toward the production of new and more productive species.

This study was carried out to determine the effects of auxins and cytokinins on the rooting of *single node carnation explants in the modified MS medium*. A Netherlandr carnation called Randomized Design (CRD).

In order to obtain suitable root formation, desirable root length and a high number of roots different levels of IBA,IAA,NAA,BA (0, 0.1, 0.2, 0.3 mg/l) were used and the length of explants, number of roots and percentage of rooting wre determined. the best results were obtained with the application of 0.1 mg/l NAA, or 0.3 mg/l IAA in combination with 0.1 mg/l BA and 0.3 mg/l IBA in combination with 0.1 mg/l BA.

Reviewing other results shows that the application of auxins as a rhizogenic