

Rooting behavior and shoot growth of cutting raised plantlets of Phalsa (*Grewia asiatica* L.) as influenced by plant growth regulators and dates of planting

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ABSTRACT : Role of some auxins, indol-3-butyric acid (IBA) and a-naphthalene acetic acid (NAA) has been examined for their stimulatory effects on adventitious root formation in stem cuttings of Phalsa (*Grewia asiatica* L.) under different planting dates. Concentration of IBA (300 ppm) was found to be the most effective treatment as it not only induced maximum rooting (72.57%) but also enhanced total number of roots, length of root, diameter, fresh and dry weight of root. Further, the growth performance of these cutting raised plantlets, under different planting dates, was compared. It was found that planting of phalsa cuttings on 30th July resulted in morphologically healthy plants in terms of the length of longest sprout, fresh and dry weight of stem along with partitioning coefficient of stem. Therefore, it was concluded that IBA treatment not only improve the per cent rooting but also improve the subsequent shoot growth of the plantlets of Phalsa .

Key Words: Phalsa (*Grewia asiatica* L.), naphthalene acetic acid (NAA), indole butyric acid, vegetative propagation, planting dates.