



Influence of Auxin on Rooting in Hardwood Cuttings of Apple (*Malus × domestica* Borkh.) Clonal Rootstock 'M 116' under Mist Chamber Conditions

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Abstract: The present research work was conducted with an objective to study the influence of auxin on rooting and growth of rooted plants of hardwood cuttings of new apple clonal rootstock M 116. The experiment was laid out in completely randomized design consisting of ten treatments viz., IBA at 1500, 2000, 2500 3000, 3500 and 4000 ppm; NAA 500, 1000, 1500 and (ethanol + water solution). The increased auxin concentration showed a positive correlation with respect to rooting success and growth of rooted plants of 'M 116'. IBA when applied at 3500 ppm recorded the highest rooted cuttings (57.12 %), number of adventitious roots (7.33), total root length (4.16 m), length (97.42 cm) and diameter (5.00 mm), number of leaves per cuttings (51.00) and leaf area (29.22 cm²), which was statistically at par with hardwood cuttings treated with IBA (3,000 ppm). The propagation through hardwood cuttings with the application of auxin (IBA 3,000 and 3,500 ppm) aids to availability of elite propagation materials of new apple clonal rootstock 'M 116' in order to meet out farmers demand in India.

Keywords: Apple, Auxin, IBA, Rootstock, Rooting
