

IDENTIFICATION OF SUITABLE ROOTING AND ACCLIMATIZATION MEDIA FOR WALLA PATTA

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Walla patta (*Gyrinops walla*) highly demanded for its expensive agarwood resin and under extinction due to over exploitation. Conservation of *G. walla* through natural seed propagation is limited due to low seed availability, short seed viability, lack of uniform maturity of seeds and poor germination, etc. Thus, mass propagation of *G. walla* through micropropagation has initiated and protocols had been developed upto seed germination and multiplication stages. Present study aims to identify the suitable rooting and acclimatization media in completion of micropropagation technique for *G. walla*. Twelve rooting media consists of three levels of MS medium (full MS, 1/2MS and 1/4MS) and four levels of Indol Butric Acid (IBA) concentrations (0, 0.1, 0.2 and 0.3 mg/l) were tested at 26 °C under fluorescent light. Five acclimatization media with different levels of sand, coir dust, top soil and cow dung were also tested. Rooting percentage, average number of roots per plant and the length of longest root in *in-vitro* rooting media and survival rate during acclimatization were recorded. The combined effect of the levels of MS medium and IBA concentrations were significant. Highest root induction percentage was recorded in rooting medium with 1/2MS + 0.1mg/l IBA (64.2%) followed by 1/2MS + 0 mg/l IBA (60%) at the end of 10th week. Highest average number of roots per plant was observed in 1/2MS + 0.1 mg/l IBA medium. The longest average root length was observed in rooting medium with 1/2MS + 0.1 mg/l IBA (6 cm) followed by 1/4MS + 0.3 mg/l IBA (5.5 cm) and 1/2MS + 0 mg/l (4.45 cm). Considering all the parameters, 1/2MS + 0.1 mg/l IBA is the best rooting medium for *G. walla*. Failure in acclimatization process invites repeated study to identify suitable acclimatization medium.

Keywords: Acclimatization, IBA concentration, Micropropagation, MS media, rooting, Walla patta