MULTIPLICATION OF MILLA THROUGH VEGETATIVE PROPAGATION

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Milla (*Vitex altissima* L.) is an important timber species, typically propagated through seeds. Seed propagation creates genetic heterogeneity. Besides, seed associated problems made difficulties in propagation of Milla with adequate success. Hence, potential of vegetative propagation of Milla was examined. A factorial experiment with different sources of cuttings (seedling cuttings and mature tree cuttings), planting media (water, hydroponics, sand, coir dust) and hormone concentrations (IBA at 0, 2000 and 3000 ppm) was designed. Observations on rooting percentage, root length, number of roots and shoots per cutting, shooting percentage and survival rate were made at 42 days after establishment. Rooting percentage of seedling cuttings (50%) was significantly ($p<0.05$) greater to mature tree cuttings (0). Seedling cuttings showed 84% of survival rate while mature tree cuttings were not successful (0) due to absence of root system. Highest rooting percentage and number of roots per cutting were observed in hydroponic medium with 3000 ppm IBA, while greater root length was recorded in water with 3000 ppm IBA. However, planting medium and hormone concentration showed no effect on shooting percentage, number of shoots per cutting and survival rate during the study. The interaction effect of planting medium and hormone concentration was not significant ($p<0.05$). In conclusion, hydroponic medium with 3000 ppm IBA is more appropriate for vegetative propagation of *Milla* using seedling cuttings. Further research is required to improve rooting of mature tree cuttings.

Keywords: Indole butyric acid (IBA), Planting medium, Source of cutting, Vegetative propagation, *Vitex altissima*