

FIELD PERFORMANCE OF *SWIETENIA MACROPHYLLA* KING. SAPLING IN MUNICIPAL GARBAGE AS THE POTTING MEDIA FOR REFORESTATION IN THE TROPICS

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Abstract : The term 'garbage' used internationally to describe waste materials arising from domestic, trade, commercial, industrial, agricultural and other related activities and from public services. It has created a real threat not only to the living environment but also for the cultivation of crops as well as afforestation. The present investigation was conducted to study the influence of two weeks decayed or stored waste materials as component potting media on the growth and vigour of *Swietenia macrophylla* (Mahogany) seedlings. The survival rate was ranged from 96 per cent to 99 per cent among various treatments studied. Mixture of soil, partially decayed tea waste and sand was recorded the maximum height in nursery and T1 (Control - Soil: Sand: cow dung) recorded maximum collar diameter (9.35 mm). With regards to height (155.62 cm) and diameter (14.2 mm), the maximum performance was registered in potting media containing soil and partially decayed Municipal waste (T2) in sapling level. Height and diameter increment at nursery level after eighth month showed the maximum increase was in T7 (28.32 per cent) and -3.53 per cent as compared to the control (T1) in seedling level and maximum increment per cent in the plantation was recorded in T2 (45.28) and T4 (49.55) for height and diameter respectively. The combined use of soil with garbage result in the production high quality planting material and the effect of plantation development were very less.

Keywords: *Swietenia macrophylla*, potting media, survival rate, diameter, height, increment percentage

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