**Effect of Different Potting Mixtures on Growth of Cinnamon (*Cinnamomum* *zeylanicum* Blume) Seedlings**

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The use of the correct potting mixture is a prerequisite to producing healthy plants. Department of Export Agriculture (DEA) recommended potting media for cinnamon nurseries is a mixture of topsoil: coir dust: cow dung: and sand (1:1:1:1). Unavailability of required major potting mixture ingredients, especially topsoil and cow dung, is the main problem in cinnamon nurseries. The research was conducted to find out the most effective alternative potting mixtures for the growth of cinnamon seedlings. The DEA recommendation (T1), Sub soil(SS): half burnt paddy husk (HBPH) (6:1): 20% CMS and 30% cow dung (CD )(T2), SS: HBPH (9:1):20% CMS: 30%CD (T3), SS: HBPH (6:1): 30% CMS:30% CD (T4), SS: HBPH(9:1): 30%CMS: 30% CD (T5) and SS: 30% CD (T6) were the treatment with four replicate which were arranged in Randomized Complete Block Design (RCBD). RCBD was used to block the solar radiation effect. Germination percentage, plant height, taproot length, leaf area, and dry weight of above-ground and below-ground biomass were measured as growth parameters. Leaf caterpillars, upper leaf gall, lower leaf gall, and leaf blight are counted as pests and diseases. Chemical properties were measured in potting media, CMS and CD. The bacterial colony count was recorded from the first day to day 14 of CMS preparation. The result reviewed DEA recommended potting mixture was the best for the considered growth parameters. T2 showed the highest data on leaf area, plant height, and dry weight of below-ground biomass out of the considered alternative potting mixtures. The number of nutrients applied to the pots was the reason for the poor growth of cinnamon seedlings, compare to DEA media. Thereby, Sub soil: half burnt paddy husk (6:1): 20% CMS and 30% cow dung (T2) has the potential to be developed as an alternative potting mixture instead department recommendation. The best time for application of CMS is 11 to 14 days after preparation.

**Keywords:** *bio-fertilizer, concentrated microbial solution, half-burnt paddy husk*