Evaluation of Organic Inputs in Cinnamon (*Cinnamomum zeylanicum* Blume) Nursery Media along with Subsoil as Alternative Potting Mixture

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True cinnamon comes from *Cinnamomum zeylanicum* Blume family Lauraceae is one of the oldest tree species indigenous to Sri Lanka. The objective of this research was to investigate the effect of various alternative potting mixtures on the growth of cinnamon seedlings. Half burnt paddy husk, Concentric Microbial Solution (CMS) and gliricidia solution were the selected organic substances which used for the potting mixture along with the subsoil. Treatments comprised two levels of Half Burnt Paddy Husk (availability and non-availability), four levels of CMS (0%, 4%, 10%, 20%) and two levels of gliricidia solution (availability and non-availability). The experimental design was split-split plot design with four replications. Half Burnt Paddy Husk was in the main plots, levels of CMS in the sub-plots and gliricidia solution in the sub-sub plots. All together there were 16 treatment combinations and control plot was prepared using Department of Export Agriculture recommended potting mixture coir dust: top soil: cow dung: sand (1:1:1:1). Results indicated that the availability of half burnt paddy husk in the nursery media significantly enhances the seedlings' height and total root length by about 7% and 22%, respectively. The highest concentration of CMS significantly enhances the total root length by about 32%. Significantly highest microbial activity was detected in the highest concentration of CMS. But when compared to the control, all the treatments were showed poor vegetative growth, soil chemical and biological properties. It can be concluded that the availability of half burnt paddy husk and the highest concentration of CMS significantly enhanced seedling's vegetative growth while CMS enhanced the soil's biological properties.

Keywords: Bio-fertilizer, Gliricidia, Half Burnt Paddy Husk, Microbial Activity