

COMPATIBILITY AND NURSERY PERFORMANCE OF GRAFTING COMBINATIONS OF *Coffea arabica* L. AND *Coffea robusta* L. WITH DIFFERENT GRAFTING CLAMPS

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Coffee is commercially propagated by seeds, resulting in greater heterogeneity among seedlings. Asexual propagation by grafting has gained an attention to improve yield and cup quality. The present research evaluated the compatibility and nursery performance of grafting combinations of *Coffea arabica* varieties (S9 and *Lak Perakum*) as scions and *Coffea robusta* as rootstock with different grafting clamps (polysack thread and food wrapping). Two-factor factorial experiment was conducted with four treatments; T1:S9 with polysack thread, T2: S9 with food wrapping, T3: *Lak Perakum* with polysack thread, and T4: *Lak perakum* with food wrapping with three replicates, each having 25 plants. Treatments were arranged in a CRD under net house conditions. The growth parameters were measured. Data were analysed using ANOVA and means were separated by LSD using R software. Results revealed that growth parameters; number of leaves, leaf area, shoot and root fresh weights, shoot dry weight and root:shoot ratio were not significantly ($p>0.05$) affected by both variety and grafting clamp. However, significantly ($p<0.05$) greater shoot and root fresh weights and dry weights were recorded with T4: followed by T1, T2, and T3. *Lak Perakum* performed better than S9 as a scion material, while food wrapping acted as a better alternative grafting clamp. Continuation of the research throughout the nursery period is suggested for a better conclusion.

Keywords: Asexual propagation, Food wrapping, Polysack thread