

(394) Wrapping Materials for *Camellia oleifera* Abel Hypocotyl Grafting

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Tea oil camellia (*Camellia oleifera* Abel) is high-grade cooking oil in China and some other Asian countries. Hypocotyl grafting is an effective way to reproduce elite tea oil camellia cultivars for their plantation. Since the underground hypocotyl stock is very young and fragile, wrapping materials for the grafting union have to be selective. 'Ninglin' is a selected cultivar with high-yield of quality oil. One node scion of 'Ninglin' was grafted on the underground hypocotyl stock and wrapped with grafting tape, metal twist, and strips cut from aluminum toothpaste tube. Wrapping materials significantly affected the survival rate. Plants wrapped with strip reached 81.0%, while the plants with twist and tape were 70.0% and 68.5%, respectively. Plant height was significantly taller for strip (8.28 cm) and tape (8.29 cm) than twist (6.13 cm). Stem diameter at the ground level did not have too much difference. Shoot proliferation was significantly higher for strip and average 1.32 shoots were observed. Only 1.19 and 1.15 shoots were for twist and tape. Subsequently, axillary budbreak was statistically lower for twist than strip and tape. Field beds prepared with manure at rate of 1500 kg·ha⁻¹ produced significantly stronger and better branched plants. Obviously, aluminum strip is better material for wrapping tea oil camellia hypocotyl grafting union. Further studies should focus on source and preparation of aluminum strips or similar materials.

Note: Donglin Zhang is also a guest professor at Central South University of Forestry and Technology, Changsha, Hunan, China.