

Variation in Rooting Response Among Clones and Rooting Methods in *Casuarina equisetifolia*, *C. junghuhniana* and their Hybrids

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Abstract

Casuarina is widely grown as a commercial tree crop in farmlands of Southern India especially in the coastal region. In order to maximize wood production, clonal plantations are becoming popular among farmers and industries. A large amount of clonal planting material is needed to meet the demand. This task can be achieved through identification of clones and rooting methods which are amenable to simple and low-cost vegetative propagation. The present study investigated variation in response among clones of *Casuarina equisetifolia*, *C. junghuhniana* and their interspecific hybrids aged from one to four years under solid and water media for rooting. Softwood cuttings were treated with different concentrations of auxins (IBA and NAA) and planted either in soil or water culture cups. Results showed that the highest rooting percentage was obtained for cuttings collected from one year old trees treated with 300-500 mg/L IBA and NAA rooted in water medium. In general hybrid clones showed faster and better rooting than clones of parent species. They also responded well for rooting in water medium. The results of this study can be used to develop simple and cost-effective techniques for large scale production of Casuarina clones.