

## **Mass propagation of dendrocalamus asper by branch cutting**

### **ABSTRACT**

*Dendrocalamus asperis* a thick-walled bamboo species widely used for edible shoots, chop sticks, rural housing, structural and building construction, ornamental and ecotourism purposes in Malaysia. However, due to the declination of timber production, increasing human population and their ever increasing demand, natural bamboo stands will not be able to cope with the growing demand in the future. Supply of bamboo may be increased through large-scale commercial or industrial plantations to fulfil the gap between demand and supply. However, the main problem for commercial plantation of bamboo species in Malaysia is the inadequate supply of quality planting materials since most of the commercially important bamboo species do not produce or produce few seeds after long intervals. The current study was therefore, designed to investigate the mass propagation potential of *D. asper* through branch cutting using an easy, inexpensive and efficient method. Primary or secondary branches consisting of three to four nodes along with the swollen base were planted into plastic buckets filled with coarse sand in partial shade under nursery condition. Before planting the cuttings, bases were treated with 0, 0.2, 0.4 or 0.8% indole-3- butyric acid (exogenous IBA) solution for 5 min. The species was found to develop root, shoot and rhizome even without any rooting hormone. However, rooting ability, shoot number and length and survival percentage were significantly enhanced when cuttings were treated with IBA. Findings of the present study are expected to have significant impact on vegetative propagation of this thick-walled bamboo species.

**Keyword:** Clonal propagation; Growth performance; IBA concentration; Rooting ability