

## **MICROPROPAGATION OF SELECTED COMMERCIAL BAMBOO SPECIES IN CENTRAL INDIA**

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**ABSTRACT:** Micro-propagation of economically important bamboos, including nine indigenous species (*B. bambos*, *B. nutans*, *B. nana*, *B. polymorpha*, *B. tulda*, *B. vulgaris* var. *Green*, *D. giganteus*, *D. membranaceus* and *D. strictus*) and one exotic edible species (*Dendrocalamus asper*) were standardized, using single nodal segments with axillary buds as explants, through four stages, viz., collection and sterilization of explants, culture establishment, shoot multiplication and root induction and finally hardening and acclimatization before field plantation, preferably in rainy season. Sterilized explants were established for shoot multiplication on semi-solid or liquid culture (usually MS) medium enriched with 1 – 7 mg BA/l. A culture cycle of 15 – 30 days produced 2 – 15 shoots, which were induced to produce roots on MS medium enriched with 3 – 5 mg IBA, NAA or coumarin. The rooting success varied from 50 – 90 %. The plantlets were gradually hardened for 2 – 3 months from culture room to shadehouse via mist chamber. The hardened plantlets showed 80 – 100 % field survival. About 40,000 plants of *D. asper* were produced and distributed for establishment through out India. Recently, 4,000 plants each of *B. nutans* and *B. tulda* have also been produced.

**Keywords :** Adventitious rooting, *B. bambos*, *B. nutans*, *B. nana*, *B. polymorpha*, *B. tulda*, *B. vulgaris* var. *Green*, *Dendrocalamus asper*, *D. giganteus*, *D. membranaceus*, *D. strictus*, Nodal explants, Hardening.