

## PROJECT PROFILE

**Title of the Project:** Refinement of *in vitro* multiplication protocol for *Bambusa nutans* and *Dendrocalamus giganteus*.

**Principle Investigator** Dr. R. Yasodha, Scientist E

**Co-Investigators:** Dr. K. Gurumurthi (till August 2004)  
Dr. S. Santan Barthwal (till August 2006)

**Duration of Project:** 2004 -2008

**Objectives**

1. Development of *in vitro* cultures from identified genotypes of *D. giganteus* and *B. nutans*
2. Refinement of Micropropagation protocol for the large-scale multiplication of *D. giganteus* and *B. nutans*

**Funding agency:** Department of Biotechnology, Govt. of India

### Summary:

- Developed *in vitro* axillary bud proliferation protocol for the multiplication of mature plants of *Bambusa nutans* and *Dendrocalamus giganteus*
- Carbon source Glucose is identified as the major regulator for root induction in multishoots derived from mature plants like *Bambusa nutans* and *Dendrocalamus giganteus*
- Pruning of actively growing culm proved to be effective for higher explant production in *Dendrocalamus giganteus*, where more explants with suitable size can be extracted
- Modification of supply of Nitrogen and Magnesium was found to be favorable for culture establishment and shoot multiplication in *D. giganteus*
- Addition of low levels IBA proved to be effective in controlling shoot necrosis of *D. giganteus* rooted plants.
- 1400 plants of *B.nutans* and 40 plants of *D.giganteus* produced for raising demonstration trials.
- Field demonstration trial established for *B.nutans* with 500 plants in the ongoing field demonstration project of IFGTB.