

Title of the project: “Micropropagation and transformation of *Dendrocalamus strictus* - an economically important bamboo”

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Summary of the project:

The major role of *Dendrocalamus strictus* in modern society is in the production of paper. In the present study a simple and rapid micropropagation protocol, for *D. strictus* has been developed which can be used for large-scale production of clonal planting material followed by field plantation. This helps in providing raw material for paper industry. For direct organogenesis from seeds, MS medium supplemented with BA 20mg/l proved best for multiple shoot proliferation. Nodal explants can also be used for micropropagation of *D. strictus* when inoculated on MS+ NAA +BA enriched medium. For inducing rooting in *D. strictus* MS +IBA was found to be optimum. However, leaves are not suitable for mass scale in vitro propagation of *D. strictus*. To begin with the transformation experiments, MIC of Kanamycin for *D. strictus* was standardized for selection of transformed plantlets from non-transformants. It was found to be 60mg/l. A simple and efficient genetic transformation protocol for *D. strictus* has been evaluated. Transformed plants were successfully transferred to pots.