(V)

ALBINO SEEDLINGS IN *DENDROCALAMUS STRICTUS* NEES.

For raising stock of *Dendrocalamus strictus* Nees. a bulk sample of seeds was sown in germination trays filled with a mixture of soil and sand mixed in the ratio 1: 3 in the mist chamber on 15/5/2005 at Kalsi Forest Research Nursery. Seedlings so raised showed distinct segregation (Fig. 1) in normal green and albino seedlings.

Occurrence of albino seedlings has been reported in many forestry species. To cite a few, *Dendrocalamus strictus* (Kumar *et al.*, 1993), *Bambusa bambos* syn. *B. arundinacea* (Kumar *et al.*, 1995; Kondas *et al.*, 1973; Indira, 1988), *Bambusa* sp. (Alexander and Kandaswami, 1966) *Melocanna baccifera* (Dakshindas, 1995), *Bombax ceiba* (Venkatesh and Emmanuel, 1976), *Eucalyptus camldulensis* and *E. tereticornis* (Venkatesh and Sharma, 1974), and *Pterocarpus santalinus* (Vakshasya, 1981).

Albinism is governed by single recessive gene and the trait is expressed

Fig. 1

Normal green and albino seedlings of *Dendrocalamus strictus* Nees.

only when it is in homozygous recessive condition. Besides mutations, albino seedlings may be produced either by selfing of an albino carrier or by mating of albino carrier (Squillace and Kraus, 1963). Under natural conditions the frequency of such seedlings may vary depending on the extent of selfing or mating of albino carriers. In the present case the frequency of albino seedling is quite high and as such can not be due to mutation. Since albino seedlings do not have the chlorophyll the food manufacturing unit they do not survive for long and die when they have exhausted the food which was stored in the seed. Hence, this is a lethal gene. As such they do not have any economic value. However, such seedlings can be used as genetic markers for the estimation of natural selfing in a species if one is able to identify such genotypes which are carrier for albinism. Estimate of natural selfing have been made in Slash pine (Squillace and Kraus, 1963) and in *Eucalyptus tereticornis* (Venkatesh and Sharma, 1973).

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Forest Research Centre, S.K. Verma
(Uttarakhand Forest Department)
Kalika, Ranikhet (Uttarakhand).