

## Recent Flowering of Giant Bamboo (*Dendrocalamus giganteus* Munro) in Bangladesh

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*Dendrocalamus giganteus*, known as giant bamboo, is the tallest among the bamboos, measuring on an average about 25 m high and 25 cm diameter. It is cultivated in Cox's Bazar, Banderban, Chittagong, Mymensingh, Panchagar, Jessore and some other Districts of Bangladesh. Its local names are wara bans, bhudum bans, bombai bans, raja bans, kanchan bans, etc. It grows luxuriantly in all the flood free areas.

It was reported earlier that *D. giganteus* flowered at Calcutta Botanical Garden, India in 1860-61 and again in 1888 and in Burma in 1892 (Gamble 1896). Lahiri (1974) reported that one clump introduced during 1880-88 at Kurseong Division, India flowered in 1974. Bahadur (1979) reported flowering of this species at Forest

Research Institute campus, Dehra Dun in 1979. As reported by Gupta (1982), one clump flowered in 1981 along the Tuli-Wokha road of Nagaland, India.

It was observed that a clump of *D. giganteus* partly flowered at Muktaghacha, Mymensingh in April, 2001. The clump had 13 culms but only two culms flowered. Another clump flowered partly in 2000. After removal of the flowering culms with rhizomes, the clump had no sign of further flowering. In the same location a clump gregariously flowered (Fig. 1) and some mature seeds (Fig. 2) were collected in April, 2000. The measurements of these seeds were taken (Table 1). The clump initiated flowering in 1998 and the whole clump died in October, 2000. This isolated

Table 1. Measurements of mature seeds of giant bamboo (*D. giganteus*).

Measurements	Seed with husk				Seed without husk			
	Length (cm)	Width s/s (cm)	Width v/d (cm)	Weight (gm)	Length (cm)	Width s/s (cm)	Width v/d (cm)	Weight (gm)
Average*	1.42	0.32	0.286	0.050	0.726	0.284	0.251	0.042
Maximum	1.50	0.37	0.340	0.065	0.800	0.320	0.290	0.054
Minimum	1.30	0.26	0.250	0.045	0.650	0.250	0.210	0.028

\* Average of 10 seeds, s/s : side to side, v/d : ventral to dorsal.



Figure 1. Gregarious flowering in a clump of giant bamboo (*D. giganteus*).

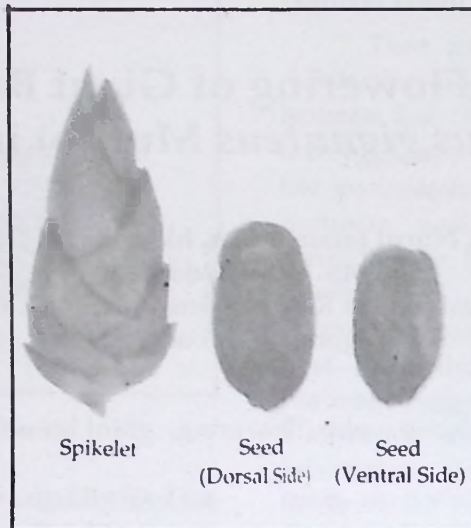


Figure 2. Spikelet and mature seed in dorsal and ventral view of giant bamboo (*D. giganteus*).



Figure 3. *In vitro* culture of giant bamboo (*D. giganteus*) plantlets.

flowering clump produced a very small quantity of seeds. The collected seeds, 23 in number, were sterilized and inoculated in MS medium for germination. Out of these only 15 seeds were germinated. A protocol for *in vitro* mass propagation has been developed and five generations are being cultured (Fig. 3).

Two clumps of *D. giganteus* flowered in 1994, one at the bambusetum of Bangladesh Forest Research Institute (BFRI), Chittagong and another at Sarkerhat, Chittagong. Both the clumps were cloned from a clump established previously at the bambusetum, the propagating rhizome of the mother clump was collected from Ramu,

Cox's Bazar. No flowering was observed in the mother clump. The clump in the bambusetum initiated emergence of spikelets in November, 1993 and started flowering in January, 1994. The flowering clump was found producing viable pollen and ovules but no mature seed was obtained. No wild seedling was seen on the floor under the clump. Sparrows, squirrels, etc., abundant in this area, were found to eat bamboo seeds. The clump did not produce any new culm and died at the end of July. The clump flowered at Sarkerhat, Chittagong produced no mature seeds or wild seedlings. However, new culms in this clump emerged, but the grower cut the whole culms including the dead and new ones.

## References

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