

Sporadic and Gregarious Bamboo Flowering in Relation to Pulpwood Production and Management

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The bamboo species occurring in Madhya Pradesh and mainly used by the Paper Mills, is *Dendrocalamus strictus*. It flowers at the age of 20 to 30 years, and after flowering the clump dies. The seeds from flowered clumps, germinate and gradually develop into new clumps. This process of development of clumps till they become exploitable takes a period of 6 to 10 years.

Flowering of this bamboo occurs in two different ways, viz., (i) Sporadic flowering, and (ii) Gregarious flowering.

Sporadic flowering of individual clumps is a very common feature. The extent of such a flowering does not exceed about 5 percent of the total clump population. Such sporadically-flowered clumps are clear-felled. They do not pose any problem of management of utilization.

The process of gregarious flowering commences slowly and suddenly spreads on vast areas. The bamboo forest destined to gregarious flower-

ing, is affected in waves of flowering of all clumps and the process takes 2 to 6 years to cover a sizeable area. The first indication of gregarious flowering is the unusual increase in the sporadic flowering of clumps. The clumps so flowering approach a percentage of 15 to 20 of the total clump population. Recurrence of such a heavy sporadic flowering continues for 1 to 3 years and thereafter gregarious flowering commences covering large areas of the total bamboo forests, till the entire area has flowered and clumps become dead.

Heavy sporadic flowering, preceding the gregarious flowering does not cause much difficulties in the management of bamboo forests for pulpwood production. It is simple to concentrate on clearfelling of flowered clumps only and as far as possible to refrain from cuttings from unflowered clumps.

In the event of gregarious flowering, real difficulties of management arise. The vast flowered areas are to be clearfelled and fellings in unflowered areas must necessarily cease. The bamboo stocks accruing as a result of felling the flowered clumps, are far more in excess of the

annual requirement. Accumulation of such large bamboo stocks in Mill yards pose further difficulties of storage, fire hazard, deterioration of stocks, heavy insurance charges, and locking up of capital. Also, when the gregarious flowering is complete and entire flowered clumps are harvested, the process of forming new clumps takes 6 to 10 years and during this period, no bamboos remain available for exploitation. A situation of this nature, which recurs only at a long cycle of 20 to 30 years, may be dealt with as follows:

(1) The bamboo-using industries should form an Association to help each other in the event of gregarious flowering in their leased areas.

(2) In the event of gregarious flowering, the associated industries should suspend fellings in their own leased areas, and be able to use bamboos from the gregariously-flowered area only.

(3) During the formative period of new clumps in the gregariously-flowered areas, the associated industries which had used the flowered bamboos, should make available bamboos from their own leased areas.

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