Short Communication

VEGETATIVE PROPAGATION OF ADULT TREES OF ACACIA HYBRID (*ACACIA AURICULIFORMIS X ACACIA MANGIUM*)

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Acacia auriculiformis and *A.mangium* the two fast growing exotic species have been introduced to Bangladesh for meeting the increasing demand of fuelwood and poles. During last decade, thousands of hectares of plantation have been raised with these two species. In a number of *A. auriculiformis* plantations, several outstanding trees have been observed with good growth and vigour. These trees possess many characteristics of both good growth and vigour. These trees possess many characteristics of both *A. auriculiformis* and *A. mangium*. The hybrid trees coppice well and are somewhat resistant to heart rot disease in addition to its higher growth rate. The per unit area productivity of this hybrid would be higher than the existing output of either of the parent species. The use of vegetative propagules rather than seedlings as a commercial forest regeneration method present an opportunity in genetic improvement.

A preliminary study was undertaken on vegetative propagation of this outstanding hybrid tree. In Harbang Forest Area of Chittagong 5.0 and 70.0 acre plantations of *A. auriculiformis, A. mangium* and *Eucalyptus camaldulensis* were raised during 1986 and 1990 respectively. In a patch of 20 acres 9 hybrid trees were identified from their outstanding growth. They were 7-10 m tall having 9-13 cm diameter at breast height (DBH), while most of the sisters in the population of *A. auriculiformis* 4-7 m in height and 3-6 cm at DBH. Out of the above mentioned 9 hybrid Acacia trees, two were selected for cutting collection. Both the trees were felled, one partly other completely, 30 cm above the ground to initiate the production of sprouts on the stump. The stump of the completely felled tree was covered with sand for stooling. Within two weeks sprouts developed and they were collected, treated with rooting hormone (IBA) in 50 and 100 ppm concentration. The treated cuttings were placed on sand rooting medium under intermittent mist. The cuttings rooted well within 2-3 weeks. In case of the treated cuttings the rooting percentage varied from 70-95, while it was about 40-55% in control.

The detail study is underway for developing a dependable method of clonal propagation of *Acacia* hybrid.

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