

Gene Manipulation: Its Impact on Tree Improvement

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ABSTRACT By the application of basic genetic knowledge, the artificial regeneration of woody plants is a very important component in the reforestation programmes in recent years. Large gaps of knowledge still exist regarding the arrangement and functions of plant chromosomal DNA. In this review, priority has been offered to the need and use of plant genetic material in the management of natural forests deploying the knowledge of gene expression and their successful manipulation. The basic principles, scope of application, prospects and probable shortcomings in the use of nucleic acid hybridisation, protoplast fusion and gene transfer by recombinant DNA technology have been focused.