

1713 EVALUATION OF GENETICALLY MALE STERILE FUZZLESS LINTLESS COTTON FOR USE IN HYBRID BREEDING

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India is the major producer of hybrid cotton, *Gossypium* spp., and 100% of the hybrid cotton produced in India is transgenic. The cotton planting seed industry in India consists of many smaller operations and thus the chances of contamination in the production, ginning, and delinting of planting seed is significant. More over, the delinting process involves the use of hazardous chemicals that are unsafe for human beings as well as damaging to the environment. The fuzzless lintless trait in *Gossypium hirsutum* L. was first reported as a mutant trait by Griffee and Ligon (1929) and the genetics of the mutant trait is well defined. This trait was combined with a genetically male sterile line through back crossing to develop a female parent for use in hybrid breeding programs. The F₁ developed on such female inbreds produced fuzzy linted seed with normal fibers. Performance of the fuzzless lintless line in hybrid combination and comparison of the isolines for fuzzy linted and fuzzless lintless trait for important economic & biochemical characters are described.