IDENTIFICATION AND EVALUATION OF INTROGRESSED CHROMATINS IN SEALAND COTTON CULTIVARS

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Abstract

Sealand cotton cultivars exhibit improved fiber quality characteristics than most upland cultivars. Pedigree records indicate that sealand cottons (542 & 883) were developed through interspecific breeding with Sea Island cotton (Gossypium barbadense). Genome wide survey with RFLP markers was undertaken to determine the levels and location of introgressed G. barbadense chromatin in otherwise G. hirsutum genome. A total of 17 markers were identified which harbor barbadense alleles in the two sealand cultivars. These markers mapped to 25 locations on 15 cotton chromosomes. Additional RFLP and SSR markers are being employed to demarcate the boundaries of the introgressed regions.