

1346 Study of Introgressed Elite Gene Associate with Fiber Properties into *G. hirsutum* from *G. barbadense*

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Using 6 sea-island, *Gossypium barbadense*, cotton genotypes such as 7124 as the donor parent and upland, *G. hirsutum*, cotton line 89-127 as the recipient parent, alleles which control fiber properties have been introgressed into the upland parent. Through the use of limit backcross and combination crosses, four elite fiber quality strains were developed. HVICC UHM length of the 4 introgressed lines ranged from 31.9 to 34.8mm, an increase of 0.4 to 3.3mm compared to the upland cotton parent; fiber strength ranged from 33 to 35.2 cN·tex⁻¹, an increase of 2.9 to 5.1 cN·tex⁻¹; and micronaire in these four strains ranged from 3.9 to 4.2, which was similar to the upland parent. This research indicated that effective introgression from *G. barbadense* into *G. hirsutum* is possible.