1311 Performance of Sea Island x Upland Progeny

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Three upland, *Gossypium hirsutum*, genotypes were crossed with two *G. barbadense*, biotype sea island, genotypes in an effort to integrate superior fiber quality alleles from sea island into upland phenotypes. Initial crosses were made in 1999 and the F_3 generation grown at College Station in a spaced nursery in 2002. Individual F_3 selections were advanced as progeny rows to the $F_{3:5}$ generation with resulting strains evaluated in replicated trial sat College Station, Texas during 2004 and 2005. These interspecific (ISH)strains ranged in lint production from 402 to 784 kg ha^{-1}, compared with 976 kg ha^{-1} for Deltapine 491. Lint fraction among the ISH strains ranged from 31.9 to 40.1%, compared with 40.1 for Deltapine 491, while HVI UHM length ranged from 29 to 32 mm and fiber bundle strength ranged from 274 to 333 kN m kg^{-1}. Deltapine 491 averaged 29 mm UHM length and 264 kN m kg^{-1} fiber bundle strength. Other HVI fiber properties of the ISH strains were within the limits of normal upland genotypes. These strains produced excellent fiber properties suggesting introgression from *G. Barbadense* and should be good parental material for fiber enhancement.