COMBINING ABILITY OF TAM EXTRA LONG STAPLE UPLAND GOSSYPIUM HIRSUTUM

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Abstract

Extra Long Staple Upland (ELSU) germplasm lines were developed by the Cotton Improvement Laboratory at Texas A&M University. These lines exhibit UHM fiber lengths from 1.29 inches, the minimum for ELS classification, to 1.37 inches. An experiment was conducted to determine the general and specific combining ability of 50 of the TAM ELSU germplasm lines when hybridized with either Tamcot CAMDE or Coker 312. Resulting F_1 progeny were field grown in a replicated trial in College Station, TX, in 2007 with combining ability calculated for lint fraction and fiber traits. This information can be used by breeders to determine which TAM ELSU lines would be preferable as parental material to improve fiber length and other fiber properties.