

**EVALUATION OF RESISTANCE TO COTTON FLEAHOPPER (*PSEUDATOMOSCELIS SERIATUS*  
REUTER) INJURY IN COTTON****George Cutts, III****Wayne Smith****Texas A&M University****College Station, TX****Allen Knutson****Manuel Campos****Texas AgriLife Research and Extension****Dallas, TX****Abstract**

Cotton fleahopper (CFH) (*Pseudatomoscelis seriatus* Reuter) is a major pest of cotton in Texas. The relative importance of this pest has increased in recent years as losses to boll weevil and bollworm/budworm have declined due to the success of the boll weevil eradication program and the adoption of Bt transgenic cotton, respectively. In 2007, 29% of the plants from the cotton cultigen Pilose were rated resistant to CFH injury. In 2008 50% of the selections from the 2007 resistant parents were scored as resistant. Pilose has long, dense trichomes on the squares and stems but it is not known if the pilosity contributes to CFH resistance. In 2008, Pilose was crossed with three upland parents varying in pubescence levels. A total of 372 plants across smooth, normal leaf, and pilose populations were screened for resistance. No significant correlations were found between the number of damaged squares and the density of mid-vein leaf hairs or density of hairs on squares. There were significant differences in mean square damage between the smooth, normal leaf, and pilose populations with 4.05, 3.27, and 2.37 damaged squares per plant, respectively. While data indicate that CFH resistance in piles plants could be linked to leaf hairiness, square damage for two individual lines within the normal group was not significantly different from several individuals in the Piles group.