## COTTON FLEAHOPPER (*PSEUDATOMOSCELIS SERIATUS*) DAMAGE IN UPLAND COTTON: BREEDING EFFORTS TOWARDS INCREASED RESISTANCE Laura Ann McLoud Steve Hague Texas A&M University College Station, TX

## <u>Abstract</u>

Cotton fleahopper (*Pseudatomoscelis seriatus*) (Hemiptera: Miridae) is a piercing-sucking insect that has emerged as a major pest in the Texas cotton industry over the past decade. Cotton fleahopper feeding results in square damage, abscission, and subsequent yield loss. Previous studies in Upland cotton indicate that plant trichome density plays an important role in conferring resistance to cotton fleahopper, but the mechanism of resistance remains largely unknown. In this project, three families of potentially resistant lines and two high-yielding lines were screened for resistance to cotton fleahopper under field infestation levels. Lines within the three families exhibited pubescences ranging from smooth to pilose; of the high-yielding lines, one was smooth and the other hairy. Plants were screened in College Station and Corpus Christi, TX, in 2012, and in College Station only in 2013. Lines within the potentially resistant families showed significantly less square loss than either of the high-yielding lines, despite supporting higher fleahopper numbers. Within phenotype groups (smooth, hairy, pilose), lines from the potentially resistant families exhibited less square loss than the high-yielding lines, indicating resistance to cotton fleahopper feeding across a range of leaf pubescences.