

## **1548 Resistance to the cotton fleahopper (Miridae: *Pseudatomoscelis seriatus*) in cotton germplasm**

Dr. Allen E. Knutson , Texas A&M University, Dallas, TX

Dr. Serene Isaacs , Texas A&M University, Dallas, TX

Dr. C. Wayne Smith , Texas A&M University, College Station, TX

The cotton fleahopper, *Pseudatomoscelis seriatus*, is a small plant bug (Miridae) and often one of the top five most important cotton insect pests in the U.S. It is especially damaging in Texas and Oklahoma. Cotton fleahopper is an early season pest as it feeds on the very small (1-3 mm diameter) floral buds or "squares". Abortion of small fruit buds reduces yield and delays crop maturity. Treatment with insecticides is the only control tactic. Germplasm representing commercial and breeding lines from U.S. regional germplasm pools, introgression of *G. hirsutum* with three other species, primitive race stocks and converted (day-neutral) race stocks of *G. hirsutum*, and several *Gossypium* species were screened for resistance to cotton fleahopper using a no-choice cage test. The highest level of resistance was found in several primitive race stocks of *G. hirsutum* from Mexico. Studies are described to confirm the resistance, measure the frequency of resistance within these populations and advance this resistance into upland cotton breeding lines.