

EFFICACY OF DIAMOND FOR TARNISHED PLANT BUG CONTROL IN NORTHEAST ARKANSAS**Don P. Harlan****Mid-South Ag Research, Inc.****Proctor, AR****Robert D. Hinkle****Crompton Corporation****Hernando, MS****Abstract**

Diamond™ (novaluron) was evaluated for control of tarnished plant bugs *Lygus lineolaris* (TPB) on cotton in Crittenden County, Arkansas in 2003 and 2004. In 2003 Diamond was applied alone at rates of 0.058 and 0.078 lb a.i./A and compared to Centric (thiamethoxam) applied at a rate of 0.05 lb a.i./A. In 2003 Diamond at 0.058 lb a.i./A or Centric at 0.05 lb a.i./A provided TPB control and cotton square retention significantly better than the untreated check. Cotton yields were not significantly different among treatments. In 2004 Diamond was applied alone, with Karate Z (lambda-cyhalothrin) or Orthene (acephate) and with Agridex or Silwet. Centric was used alone at 0.05 lb a.i./A as the standard. In 2004 all treatments were significantly lower than the untreated check for numbers of TPB nymphs. There were no significant differences among treatments for numbers of TPB nymphs. All treatments were significantly greater than the untreated check for percentage cotton square retention, but, there were no significant differences among treatments for percentage square retention. In 2004 cotton yield with Diamond at 0.058 lb a.i./A + Agridex at 1.0 % v/v or Centric at 0.05 lb a.i./A was significantly better than Diamond at 0.039 lb a.i./A + Agridex.