

**SILVERLEAF WHITEFLY: AN ECONOMIC PEST  
OF COTTON IN GEORGIA?**

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**Abstract**

Sporadic and isolated infestations of silverleaf whitefly (SLWF) have occurred on cotton in south Georgia during recent years. Although SLWF is a common pest of fall vegetables, it is an unpredictable pest of cotton in Georgia. Recent dry production seasons have been conducive for infestations to build to high levels in some localized late planted fields. During the 2000 season, field experiments were conducted to quantify yield losses associated with SLWF in infested fields. Treated and untreated SLWF plots 16 rows wide by 50 feet in length were established at two locations in Tift County GA. One location was irrigated and SLWF applications included Knack plus Thiodan on August 24 and Danitol plus Orthene on September 1. Treatment was initiated when immature SLWFs numbered five per square inch on the fifth leaf below the terminal. The second location was a dryland field which was severely infested with SLWF. Treatments included Knack plus Capture on August 28 and Capture plus Orthene on September 7. Silverleaf whitefly was only marginally controlled at this site. Visual plant index ratings based on a scale from 1-10 (1=no SLWF damage....10=severe SLWF damage) made on September 19 were significantly lower in treated compared with untreated plots. However, the difference in ratings were not as dramatic at the dryland location which was severely infested when treatments were initiated. Yields in treated plots were 252 (Prob(F) 0.0910) and 60 (Prob(F) 0.1310) lbs lint per acre greater compared with untreated plots. A small plot insecticide efficacy trial was also conducted at the dryland location. Treatments which included a systemic insecticide were generally more effective in reducing plant damage in a severely infested field. Results of these studies indicate that SLWF is a difficult insect to control with insecticide. The most efficient strategy for management of SLWF in Georgia is avoidance through an integrated approach which would include avoiding late planting, utilizing smooth leaf varieties, and conserving natural enemies. Our data demonstrates that SLWF can be a yield limiting pest and further investigation in Georgia is warranted.