

## **1350 Weed management in single- and twin-row planting patterns**

Dr. Barry Brecke , University of Florida, Jay, FL  
Dr. Daniel Stephenson IV , University of Arkansas, Keiser, AR

Experiments were conducted in 2004 through 2006 to determine the feasibility of twin-row cotton production. Cotton (glyphosate tolerant) was planted in a twin-row (19 cm apart) and single-row planting patterns (76 cm apart) with a final plant populations of 1, 2, or 4 plants/foot. Weed management regimes included one, two or three herbicide applications. The crop canopy of twin-row cotton closed 1 to 2 wk earlier than the single-row cotton and light measurements showed that 10 to 20% less light reached the soil surface in the twin-row cotton. Cotton at 4 plants/foot reduced light penetration 10 to 25% compared to 1 plant/foot. At least two herbicide applications were needed for greater than 90% weed control regardless of planting pattern and plant population. Weed control with the lowest level of herbicide input was up to 10% better in the twin-row cotton and at the higher cotton densities than in the single rows and at the lowest density of 1 plant/ft. Yield of cotton in twin-rows averaged over cotton density was 10% better than in single rows.