PROJECT TITLE: COTTON SYSTEMS RESEARCH: EVALUATING HERBICIDE TECHNOLOGIES, TILLAGE SYSTEMS, AND ROW SPACINGS

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SUMMARY: The effects of row spacing, cotton variety, and tillage system were examined across three growing seasons at the Field Crops Unit of the E.V. Smith Research Center near Shorter, AL. The variables examined included plant populations, lint yields, and plant biomass at 1st square and mid-bloom. Measured plant populations were generally greater for 15-inch cotton across tillage systems, reflecting a higher seeding rate utilized in the 15-inch cotton. Lint yields were influenced by the growing season more than row spacings, cotton varieties, or tillage systems. The growing season also influenced plant biomass at 1st square and mid-bloom, but 15-inch cotton generally produced more plant biomass, while tillage systems showed more erratic effects. Although 15-inch lint yields were equivalent to 40-inch cotton lint yields, an extensive economic analysis is required to account for differing plant populations, technology fees, tillage systems, and herbicide systems to determine if a 15-inch system is more profitable than a traditional cotton system with wider row spacings.