

QUALITY COMPARISON OF SAW AND ROLLER GINNING THREE MID-SOUTH CULTIVARS**Richard K. Byler****R. G. Hardin****USDA/ARS Cotton Ginning Research Unit****Stoneville, MS****C.D. Delhom****US Department of Agriculture, Agricultural Research Service****New Orleans, LA****C. B. Armijo****USDA-ARS, Southwestern Cotton Ginning Research Laboratory****Mesilla Park, NM****Abstract**

Three cultivars; Fibermax 960 BR, Deltapine 147 RF, and Deltapine 164 B2RF; were grown normally at Stoneville, MS and spindle harvested during the 2008 crop year. The cottons were processed with the same precleaning: dryer at 250°F, cylinder cleaner, stick machine, dryer at 240°F, and cylinder cleaner. Half of each cultivar was ginned with a saw gin stand and the other half with the high-speed roller gin stand. Limited amounts of seed cotton were available, four bales of FM960, four bales of DP147, and 10 bales of DP164. One saw-type lint cleaner was used after the saw gin stand and one experimental lint cleaner as described by W. S. Anthony in 2006, was used after the roller gin stand. Lint samples were obtained between the lint cleaner and bale pres for analysis. The high-speed roller gin produced slightly higher turnout for each cultivar. The moisture content of the lint was around 3% (wb). Examination of the HVI data showed that the lint ginned with the roller gin stand was about 1.5 staple lengths longer than that ginned with the saw gin, the uniformity index was about 2 points higher and the Rd portion of color was somewhat lower. Other HVI measurements were not different between the two gin types. AFIS measurements showed that all fiber length properties including short fiber content as well as neps were improved with the roller ginning compared to saw ginning, but other measurements, such as trash count, were not significantly different.