

FIELD PERFORMANCE OF THE PEE DEE GERMPLOSM COLLECTION**B. T. Campbell****USDA-ARS****Florence, SC**

A collection of eighty-two germplasm lines and varieties, officially released from the Pee Dee Cotton Genetics program, was included in this study to represent the life of the Pee Dee program. The eighty-two lines, along with two to six current check cultivars, were evaluated for agronomic and fiber quality traits in replicated, multi-location field trials across North Carolina, South Carolina, Georgia, and Mississippi. Data collected from this experiment will provide information on the performance of specific Pee Dee lines as compared to currently grown check cultivars. In comparison to commercial cultivars, Pee Dee germplasm performed equivalent to or just below for lint percent and lint yield, superior for length, strength, elongation, and micronaire, and equivalent to or slightly superior for fiber uniformity and short fiber content. Based on evaluations thus far, numerous Pee Dee lines are available that produce significant improvements in length, strength, and elongation as compared to commercial cultivars. Several Pee Dee germplasm lines combine acceptable lint yield potential with superior fiber quality potential. Ultimately, the information within this dataset will allow for the selection of specific Pee Dee lines for specific breeding objectives.