FQEL: LABORATORY DATA VALIDATION
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Abstract

The Cotton Structure and Quality Research Group at the USDA Southern Regional Research Center has reorganized its fiber, yarn, and fabric testing to better meet the needs of the new research objective of demonstrating the value of adding new fiber quality measurements to current U.S. cotton marketing systems to better predict cotton processing efficiency and product quality. These data are collected in a database that includes pertinent information on fiber production, raw fiber and product properties, and processing information in order to provide scientists and collaborators with a clearing house of cotton information. A testing protocol for large numbers of different samples has been established. Maintaining internal checks on the testing protocol to ensure the accuracy of sample and data handling has been explored. Advanced database management techniques with analytical tools such as artificial intelligence analysis are being tested to automate the data validation process.