HVI ELONGATION: LAYING THE FOUNDATIONS FOR A NEW FIBER QUALITY MEASUREMENT

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Abstract

Processing performance and yarn tensile properties depend on both the strength and elongation of the cotton fiber. Most fiber improvement breeding efforts focus on HVI strength. However, our research demonstrates it is possible to improve fiber elongation through breeding, and that lines with higher levels of HVI elongation shows significant improvements in yarn tensile properties. One reason for the limited use of HVI elongation in research is that it was not a calibrated measurement. This led to a series of projects investigating the stability of the elongation measurement and the potential for calibration. The determination that HVI elongation can be calibrated led to the procurement of bales and preparation of elongation reference material. This reference material is now available to the industry and was used by USDA ARS in the current round trial. This presentation will provide an overview of this body of HVI elongation research.