

THE IMPORTANCE OF WITHIN SAMPLE DISTRIBUTION OF COTTON FIBER PROPERTIES FOR IMPROVING YARN QUALITY**B. Kelly****E. Hequet****Texas Tech University****Lubbock, Texas****Abstract**

The International ring-spinning market is a high value target market for domestic producers. Natural variability in cotton fiber can translate into lower production levels at the mill and imperfections in ring-spun yarns. Commercial cotton bales were selected from multiple years and locations within the cotton belt in order to characterize the relationship between fiber and yarn quality. Each bale was classed on HVI and within sample fiber quality was evaluated with AFIS. The remaining lint from each bale was used to produce 30s ring-spun cotton yarns. The results are used to investigate the importance of considering within sample variability in fiber quality when selecting lines for superior ring-spinning performance.