# Dr. Brendan Kelly

Assistant Professor of Cotton Fiber Phenomics
Appointment: 25% Research
Texas AgriLife Research and Extension Center
1102 East FM 1294, Lubbock, Texas 79403-6603
Email Address: brendan.kelly@tamu.edu

**Education:**
Ph.D., Plant and Soil Science, Texas Tech University, 2014
B.S., Mathematics, Texas Tech University, 2004

**Teaching Focus**:
U.S. and Global Cotton Fiber-Textile Industries (TTU PSS 5370)
Principles of Horticulture (TTU PSS 1401)
Regular guest lecturer on cotton fiber research in freshman and sophomore classes.
Graduate student research problems 2015-present
Major advisor for 1 M.S. and 1 Ph.D. student
Graduate student committee member for 5 M.S. and 4 Ph.D. students

**Impact Statement:**
Research: My research is focused on developing research tools and protocols needed for the quantification and utilization of distributional characteristics of cotton fiber quality. These advancements will provide researchers with a better understanding of cotton fiber as an industrial raw material. My research also facilitates the development of germplasm that exhibits improved spinning performance along with spun yarn quality.

Teaching: The amount of data gathered in modern agricultural research projects can be overwhelming. My teaching is designed to provide students with the tools needed for a structured approach to data driven research. This allows the student to develop the skills needed for work with multidisciplinary teams in modern agricultural research.

**Research & Extension Focus**:

2016 Grants $490,598 Funded

Improving the Utilization of Cotton Fiber Length Distribution in Breeding. Cotton Incorporated, $160,152 (Co-PI)

Elucidating the Impact of Processing on Fiber Elongation, Cotton Incorporated. $80,080 (Co-PI)

Improving the Utility of Fiber Quality Parameters as a Screening Tool in Breeding Programs. Cotton Incorporated. $105,166 (Co-PI)

Elucidating the Impact of fiber maturity on fiber length distribution and fiber breakage. $80,080 (Co-PI)

Textile Performance Evaluation of Selected High Plains Cotton Varieties, Plains Cotton Growers, Inc., $45,000 (PI)

Improving Fiber Elongation of U. S. Germplasm, Texas State Support Committee, $30,013.00 (PI)

Integrated Approach to Breeding for Enhanced Utilization of West Texas Cottons, $35,062 (Co-PI)

2015 Grants $426,658 Funded

Elucidating the impact of processing on fiber elongation. Cotton Incorporated, $80,181 (Co-PI)

Elucidating the impact of fiber maturity on fiber length distribution and fiber breakage. Cotton Incorporated, $80,644 (Co-PI)

Improving Fiber Testing Methods for Cotton Breeders. Cotton Incorporated, $160,254 (Co-PI)

Effect of within-plant variability on fiber quality and spinning performances. Cotton Incorporated, $105,579 (Co-PI)

Publications. Book chapters – 1, Edited – 1, Other technical publications – 4, 19 Abstracts and presentations

**Recent Publications (limit to 10 most recent):**


Kelly, B., Abidi, N., Ethridge, D., and Hequet, E.F. (2015). Fiber to Fabric. Cotton. American Society of Agronomy publications. ASA, CSSA, and SSSA.

Hequet, E. F., Kelly, B., Dever, J. (2014). Breeding for better fiber elongation: A key to improve yarn tensile properties. International Cotton Conference. Bremen, Germany.

Kelly, B. and Hequet, E. F. (2013). Breeding for Improved Yarn Quality: Importance of Non-HVI Fiber Properties. The ICAC Recorder XXXI No 2. 13-20.

Hequet, E. F., and Kelly, B. (2013). The Future of Cotton Fibers: Breeding for Improved Processability and End-Product Quality. Congresso Brasileiro do Algodao: Fibra do Futuro

Hequet, E., and Kelly, B. (2012). Predicting Yarn Quality: An Indispensable Tool for Cotton Breeders. International Cotton Conference. Bremen, Germany.


**Professional Memberships, Leadership Roles and Honors:**

1. The Association for the Advancement of Industrial Crops
2. ASA, CSSA, SSSA
3. Achievement Rewards for College Scientists (ARCS) Scholar