VITA

Brendan Kelly
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EDUCATION:

2004 B.S. Texas Tech University. Mathematics.
2014 Ph.D. Texas Tech University. Plant and Soil Science.

PROFESSIONAL EXPERIENCE:

2010 - 2011	Research Assistant. Texas Tech University
2011 - 2014	Research Associate. Texas Tech University
2015	Research Assistant Professor. Texas Tech University
2015 - 2021	Assistant Professor. Texas A&M Agrilife Research
2015 - 2021	Assistant Professor. Texas Tech University
2021	Associate Professor. Texas A&M Agrilife Research
2021	Associate Professor. Texas Tech University

LICENSES AND CERTIFICATIONS:

INTERNATIONAL EXPERIENCE:

2015. International Textile Manufacturers Association Exhibition. Milan, Italy.
2017. Invited presentation to the 11° Congresso Brasileiro do Algodao, Maceió, Brazil.
2020. Invited seminar to Empresa Brasileira de Pesquisa Agropecuária (Embrapa), Brazil.

MEMBERSHIP IN PROFESSIONAL AND HONORARY SOCIETIES: (Career)

Professional:

1. Crop Science Society of America (CSSA)
2. Soil Science Society of America (SSSA)
3. American Society of Agronomy (ASA)

Honorary:

HONORS AND AWARDS: (Career)

Honors:

1. 2017. Nominee, Hemphill Wells New Professor Excellence in Teaching Award
2. 2018. Nominee, President's Excellence in Diversity & Equity Award

Awards:

1. 2017. Recipient. Texas Tech University New Faculty Award.
2. 2019. Recipient. Raiders who Rock Pursuit of Excellence Award.

3. 2021. Faculty C-Startup.
4. 2021-2022 Top Cited Article, *Agronomy Journal*.
5. 2022-2023 Top Downloaded Article, *Biofuels, Bioproducts, and Biorefining*.

AREA OF EXPERTISE:

1. Crop quality phenomics
2. Agronomic production systems
3. Food sovereignty

PATENTS: total of __3__ (Career)

Awarded

1. **Kelly B.,** Hequet E.F., Sayeed* A., Hinds* Z. 2018. System and Method for Fibrogram Fiber Quality Evaluation. Patent Cooperation Treaty. US patent, serial number 62/585,206, filed Nov. 13, 2017. Serial number US18/60779. Awarded Sept 2022.

Pending

1. Ray, A. **Kelly, B.** Sari-Sarraf, H. 2022. Methods and systems for evaluating fiber qualities. PCT application number 63/293,448. Filed 12/23/21. TTU Ref. 2022-026. Pending.
2. **Kelly. B.** PCT application number 17/970,565. Filed 10/21/2022. Pending. Licensed.

PUBLICATIONS:

Books: total of __0___

Book Chapters: total of __3___

Published:

1. **Kelly B**.**.**, Abidi N., Ethridge D., Hequet E.F. 2015. Fiber to fabric. Cotton. American Society of Agronomy publications. ASA, CSSA, and SSSA. doi:10.2134/agronmonogr57.2013.0031
2. Delhom* C., **Kelly B.**, Martin* V. 2018. Physical properties of cotton fiber and their measurement. Cotton Fiber: Physics, Chemistry and Biology. Springer. doi: 10.1007/978-3-030-00871-0_3
3. Longing, S. and **Kelly, B.** 2023. Developing and implementing plans to conserve insect biodiversity in agricultural landscapes. Burleigh Dodds Science Publishing. https://shop.bdspublishing.com/store/bds/detail/workgroup/3-190-133397

Books and Book Chapters Edited: total of ___0__

Refereed Journals: total published ___26___, in press _____

Published:

1. Ayele* A., Hequet E.F., **Kelly B.** 2017. The impact of Fiber maturity on Estimating the Number of Cotton (Gossypium hirsutum L.) Fibers per Seed Surface Area. *Industrial Crops and Products.* https://doi.org/10.1016/j.indcrop.2017.03.004

2. Kelly B**.**, Hequet E.F. 2017. Variation in the AFIS cotton fiber length-by-number distribution captured by HVI fiber length parameters. *Textile Research Journal.* https://doi.org/10.1177/0040517516688628

3. Ayele* A., **Kelly B**., Hequet E.F. 2018. Evaluation of the within-plant variability of cotton fiber maturity and length. *Agronomy Journal.* doi:10.2134/agronj2017.06.0359

4. Schaefer* C., Ritchie G., Bordovsky, J., Lewis, K., **Kelly B.** 2018. Irrigation timing and rate on cotton boll production. *Agronomy Journal.* doi:10.2134/agronj2017.06.0360

5. McCormick*, K., Morais*, J., Hequet, E. F., **Kelly**, B. R.** 2019. Development of the Correction Procedure for High Volume Instrument (HVI) Elongation Measurement. *Textile Research Journal*. https://doi.org/10.1177/0040517519829002

6. Hendon, B., Bechere, E., Witt, T., **Kelly, B. R.,** Mishra, D., Auld, D. 2019. Genetic Improvement of Naked-Tufted Seed Mutants in Upland Cotton (Gossypium hirsutum L.). *Euphytica*. https://doi.org/10.1007/s10681-019-2400-y

7. Thompson, C. M., Hendon, B., Mishra, D., Rieff, J., Lowry, C., Lambert, K. C., Witt, T. W., Oswalt, S. J., Bechere, E., Smith, W. C., Cantrell, R. G., **Kelly, B. R.,** Imel-Vise, K., Chapman, K., Dowd, M., Auld, D. 2019. Cotton (Gossypium hirsutum L.) Mutants with Reduced Levels of Palmitic Acid (C16:0) in Seed Lipids. *Euphytica*. https://doi.org/10.1007/s10681-019-2423-4 (2022 IF 2.185).

8. Dube, N., Bryant, B., Sari-Sarraf, H., **Kelly, B.**, Martin, C.F., Deb, S., Ritchie, G.L. 2019. In Situ Cotton Leaf Area Index by Height Using Three-Dimensional Point Clouds. *Agronomy Journal.* doi:10.2134/agronj2019.01.0018

9. Bechere, E., Auld, D.L., Smith, W.C., Cantrell, R.G., Hequet, E.F., Ritchie, G. L., Pabuayon, I., Mishra, D., Hendon, B.R., Brown, N., and **Kelly, B.R.** 2020. Registration of six upland cotton germplasm lines with improved fiber quality through ethyl methane sulfonate treatments and selection. *Journal of Plant Registrations.* https://doi.org/10.1002/plr2.20005

10. Morais*, J.P.S., **Kelly**, B.R.**, Sayeed*, A., Hequet, E.F. 2020. Effects of non-lint material on heritability estimates of cotton fiber length parameters. *Euphytica* **216,** 24. https://doi.org/10.1007/s10681-019-2536-9

11. Mathangadeera*, R. W., Hequet, E. F., **Kelly**, B.**, Dever, J. K., & Kelly, C. M. 2020. Importance of cotton fiber elongation in fiber processing. *Industrial Crops and Products*, *147*, 112217. https://doi.org/10.1016/j.indcrop.2020.112217 (2022 IF 6.449).

12. Morais*, J.P., James*, J., Hinds*, Z., Smith, W., **Kelly, B.**, Hequet, E.F. 2020. A method to improve cotton fiber length measurement for laboratory analysis. *Methods X*. https://doi.org/10.1016/j.mex.2020.100859 (2022 IF 0.394).
13. Hinds*, Z., **Kelly**, B.**, Hequet, E.F. 2020. Stability, variation, and application of AFIS fiber length distributions. *Cotton Research Journal*. https://doi.org/10.1186/s42397-020-00058-0
14. Sayeed*, A., Schumann, M., Smith, W., Wanjura, J., **Kelly**, B.,** Hequet, E.F. 2020. Characterizing the total within-sample variation in cotton fiber length using the HVI fibrogram. *Textile Research Journal.* https://doi.org/10.1177%2F0040517520935212 (2022 IF 2.455).
15. Pabuayon*, I., **Kelly, B.,** McCallister, D.M., Coldren, C.L., Ritchie, G. 2020. Cotton Boll Distribution: A Review. *Agronomy Journal. https://doi.org/10.1002/agj2.20516 (IF 3.949).*
16. Delhom*, C., Hequet, E.F., **Kelly, B.,** Abidi, N., Martin*, V. 2020. Calibration of HVI cotton elongation measurements. *Journal of Cotton Research.* https://doi.org/10.1186/s42397-020-00073-1 (2022 IF 2.41).
17. Liu*, X., Woodward, J.E., **Kelly, B.**, Lewis, K.L., Byrd, S., Chen, Y. 2021. Effects of production practices on temporal disease progress of Verticillium wilt of cotton (Gossypium hirsutum L.) in the Texas High Plains, USA. *Crop Protection.* https://doi.org/10.1016/j.cropro.2020.105429 (2022 IF 3.036).
18. Smith, W., Joy, K., Hague, S., Hequet, E., **Kelly, B.,** Jones, D. 2021. TAM KJ-Q14 ESU and TAM 12J-39 ESU upland cotton germplasm with improved fiber bundle strength. *Journal of Plant Registrations. https://doi.org/10.1002/plr2.20119 (2022 IF 0.8).*
19. Smith, W.C., Hague, S., Hequet, E., **Kelly, B.** 2021. Yarn performance of Texas quality upland cotton germplasm. *The Journal of Cotton Science 25:2–10 (IF 0.148)*
20. Pascoli*, D.U., Aui*, A., Frank*, J., Therasme, O., Dixon, K., Gustafson, R., **Kelly, B.,** Volk, T.A., Wright, M.M. 2021. The US bioeconomy at the intersection of technology, policy, and education. *Biofuels, Bioproducts and Biorefining.* DOI: 10.1002/bbb.2302 (2022 IF 3.9).
21. Sayeed*, A., **Kelly, B.**, Turner, C., Hequet, E.F. 2022. Investigation of a multivariate correction method for HVI fibrogram measurements. *Agronomy.* https://doi.org/10.3390/agronomy12020460 (2022 IF 3.7).
22. Tesema*, AF., Sayeed, MA., Turner, C., **Kelly, B.**, Hequet, EF. 2022. An Approach for Obtaining Stable, Reproducible, and Accurate Fibrogram Measurements from High Volume Instruments. *Agronomy*. 2022; 12(5):1120. https://doi.org/10.3390/agronomy12051120 (2022 IF 3.7).
23. Sapkota*, B. R., Adams, C. B., **Kelly, B.**, Rajan, N., & Ale, S. 2023. Plant population density in cotton: Addressing knowledge gaps in stand uniformity and lint quality under dryland and irrigated conditions. *Field Crops Research*, *290*, 108762. https://doi.org/10.1016/j.fcr.2022.108762. (2022 IF 5.8)
24. Sayeed, MA., Turner, C., **Kelly, B.**, Wanjura, J., Schumann, M., Smith, W., Hequet, EF. 2023. A New Method to Calculate Cotton Fiber Length Uniformity

Using the HVI Fibrogram. *Agronomy.* https://doi.org/10.3390/agronomy13051326 (2022 IF 3.7).

25. Russell*, K., Dotray, P., Ritchie, G., **Kelly, B.** 2023. Effects of 2,4-D choline on fruiting in sensitive cotton. *Weed Technology.* https://doi.org/10.1017/wet.2023.38 (2022 IF 1.4).
26. Tesema*, AF., Sayeed, MA., Turner, C., **Kelly, B.**, Hequet, EF. 2023. Use of span lengths extracted from HVI fibrogram to predict yarn quality. *Journal of Natural Fibers.* https://doi.org/10.1080/15440478.2023.2248379 (2022 IF 3.5).

Pending

1. Lin*, Z., Guo, W., Gill, N.S., Ritchie, G., **Kelly, B.R.,** Song, X. Open Cotton Boll Detection using LiDAR Point Clouds and RGB Images from Unmanned Aerial Systems. *Remote Sensing.*
2. Shumate*, B., Maeda, M., Bell, J. M., Wanjura, J., Ortiz-Pustejovsky*, R., **Kelly**, B.** In situ Impacts of Late Season Low Temperatures on Cotton (*Gossypium hirsutum*) Fiber Quality and Yield on the Texas High Plains. *Agrosystems, Geosciences & Environment.*

*Graduate student author

**Corresponding author

Proceedings: total of ____

Refereed

Volunteered:
Invited:

Non-refereed

Volunteered:
Invited:

Abstracts: total of __84__

Volunteered:

1. Lamichhane* S., Hequet E.F., **Kelly B.**, Ayele*, A. G., McCormick*, K. M. 2015. An Evaluation of Improved FIAS Software. Beltwide Cotton Conference.
2. McCormick* K.M., Hequet E.F., **Kelly B.**, Ayele*, A. G., Lamichhane*, S. 2015. Stability of the High Volume Instrument (HVI) Elongation Measurement. Beltwide Cotton Conference.
3. Mathangadeera* R., Hequet E.F., **Kelly B.**, Ayele A. 2015. Importance of Cotton Fiber Elongation in terms of Fiber Processing. Beltwide Cotton Conference.
4. Ayele* A., Hequet E. F., **Kelly B.**, Baker S., McCormick K., Lamichhane S., Mathangadeera R. 2015. Within-plant variability of cotton fiber quality. Beltwide Cotton Conference.
5. **Kelly B.**, Hequet E. F., 2015. Investigating the Relationship between Cotton Fiber and Yarn Quality. Beltwide Cotton Conference.
6. Ayele* A., Hequet E.F., **Kelly B.** 2015. The Impacts of Environmental Variations on within Plant Cotton Fiber Quality. Association for the Advancement of Industrial Crops.
7. **Kelly B.**, Ayele* A., Hequet E.F. 2016. The Impact of Variation in Cotton Fiber Maturity on the Estimation of Yield Components. ASA-CSSA-SSSA International Annual Meeting. November 6-9, 2016. Phoenix, Arizona.
8. Hinds* Z., Lamichhane* S., **Kelly B.**, Hequet E.F. 2016. A Method for Measuring Cotton Seed Compression Force as a Potential Indication of Propensity to Create Seed Coat Fragments. 2016. ASA-CSSA-SSSA International Annual Meeting. November 6-9, 2016. Phoenix, Arizona.
9. **Kelly B.**, Hequet E.F. 2016. Extracting Cotton Fiber Maturity and Fineness from the AFIS Length Distribution. Beltwide Cotton Conference. January 5-7, 2016. New Orleans, U.S.A.
10. Ayele* A.G., Hequet E.F., **Kelly B.** 2016. Within-plant Variation in the Number of Cotton (Gossypium hirsutum) Fibers per Seed Surface Area. Beltwide Cotton Conference. January 5-7, 2016. New Orleans, U.S.A.
11. Lamichhane* S., Hequet E.F., **Kelly B.** 2016. An Evaluation of Cotton Fiber Cross-sections with the Image Analysis Software (FIAS). Beltwide Cotton Conference. January 5-7, 2016. New Orleans, U.S.A.

12. McCormick* K., Hequet E.F., **Kelly B.** 2016. Calibration of the High Volume Instrument (HVI) Elongation Measurement. Beltwide Cotton Conference. January 5-7, 2016. New Orleans, U.S.A.
13. Vavra* C., Nankar A., **Kelly B**, Xu W. 2017. A high-throughput method for measuring cob structure and the correlation of chemical composition with compression strength. 59th Annual Maize Genetics Conference, St. Louis, MO.
14. Ayele* A., Hequet E.F., **Kelly B**. 2017. The impact of fiber maturity on estimating the number of cotton (Gossypium hirsutum L.) fibers per seed surface area. Beltwide Cotton Conferences, Dallas, TX.
15. Hinds* Z., **Kelly B.,** Hequet E.F. 2017. The Impact of Trash Content on Cotton Fiber Quality. Beltwide Cotton Conferences, Dallas, TX.
16. Hinds* Z., Lamichhane* S., **Kelly B.,** Hequet E.F. 2017. A Novel Method for Measuring Cotton Seed Compression as an Indication of Propensity to Create Seed Coat Fragments. Beltwide Cotton Conferences, Dallas, TX.
17. **Kelly B.,** Hequet, E.F. 2017. The Development of Cotton Fiber Elongation Reference Material. Beltwide Cotton Conferences, Dallas, TX.
18. **Kelly B.,** Hequet E.F. 2017. Using the HVI to Characterize within Sample Variation in Cotton Fiber Length. ASA-CSSA-SSSA International Annual Meeting, October 22-25, 2017. Tampa, Florida.
19. Vavra* C., Nankar A., **Kelly B.**, Rock C., Marek T., Xu W. 2017. Characterization of Cob Structural Integrity, Imagery Analysis, and Biochemical Composition of Corn Hybrids. ASA-CSSA-SSSA International Annual Meeting, October 22-25, 2017. Tampa, Florida.
20. Ayele* A., **Kelly B.**, Hequet E.F. 2018. Evaluating the Impact of Within-Plant Variability of Fiber Length Distribution on Yarn Quality of Upland Cotton Cultivars. Beltwide Cotton Conferences, San Antonio, TX.
21. Kelly C.M., Dever J., **Kelly B.** 2018. Processing a Nursery: Evaluating the Utilization Potential of Early Generation Material. Beltwide Cotton Conferences, San Antonio, TX.
22. Sayeed* M.A., **Kelly B.**, Hequet, E.F. 2018. A New Approach to Characterize the Total within sample variation in fiber length: utilization of the whole fibrogram. Beltwide Cotton Conferences, San Antonio, TX.
23. Hinds* Z., **Kelly B.**, Hequet, E.F. 2018. Targeted Fiber Length Distribution for Improvement of Yarn Quality. Beltwide Cotton Conferences, San Antonio, TX.
24. Sultana* A., **Kelly B.**, Hequet, E.F. 2018. Yarn Seed Coat Fragments Identification. Beltwide Cotton Conferences, San Antonio, TX.
25. James* J.W., Hequet E.F., **Kelly B.** 2018. Enhancing U.S. Cotton Classing with Varietal Data. Beltwide Cotton Conferences, San Antonio, TX.
26. Morais* J.P., **Kelly B.**, Hequet, E.F. 2018. A Comparison of Two Boll Sampling Strategies for Fiber Quality Improvement in a Pedigree Scheme. Beltwide Cotton Conferences, San Antonio, TX.

27. Hinds* Z., **Kelly B.**, Hequet, E.F. 2018. Impact of Breeding Methods on Fiber Length Distribution Improvement. Beltwide Cotton Conferences, San Antonio, TX.
28. **Kelly, B. R.** 2018. West Texas Ag Chemical Institute, Lubbock, TX, "Cotton Quality," Regional.
29. **Kelly, B. R.** 2018. Dumas Cotton Producers, Dumas, TX, "Cotton Fiber Quality," Regional.
30. **Kelly, B. R.** 2018. Northeast Panhandle Cotton Conference, Perryton, TX, "Cotton Fiber Characteristics and Fiber Research Update," Regional.
31. **Kelly, B. R.** 2018. TX/OK Cotton Physiology, Lubbock, TX, "Developments in Cotton Fiber Quality," Regional.
32. Morais*, J., **Kelly, B. R.,** Hequet, E. F. 2018. Evaluation of Cotton (Gossypium hirsutum) Fiber Propensity to Break in a Pedigree Scheme. ASA-CSSA-SSSA International Annual Meeting, Baltimore, MD.
33. Hinds*, Z., **Kelly, B. R.,** Hequet, E. F. 2018. Variation in AFIS Length Distributions of 8 F2 Cotton (Gossypium hirsutum) Populations. ASA-CSSA-SSSA International Annual Meeting, Baltimore, MD.
34. Hinds*, Z., **Kelly, B.,** and Hequet, E.F. 2019. Exploring Variation in AFIS Length Distribution of 8 F2 Populations. Beltwide Cotton Conferences. New Orleans, LA.
35. James*, J.W., **Kelly, B.,** Hequet, E.F. 2019. Enhancing US Cotton Classing with Varietal Data. Beltwide Cotton Conferences. New Orleans, LA.
36. Sayeed*, M.A., **Kelly, B.,** Hequet, E.F. 2019. Using the HVI Fibrogram to Explain Variation in Yarn Quality. Beltwide Cotton Conferences. New Orleans, LA.
37. Morais*, J.P., **Kelly, B.,** and Hequet, E.F. 2019. Evaluation of Cotton Fibers Propensity to Break in F3 Breeding Lines. Beltwide Cotton Conferences. New Orleans, LA.
38. **Kelly, B.** and Hequet, E.F. 2019. HVI Elongation: Laying the Foundations for a New Fiber Quality Measurement. Beltwide Cotton Conferences. New Orleans, LA.
39. Sayeed*, M.A., **Kelly, B.,** Hequet, E.F. 2019. Calibration of the High Volume Instruments with the Whole Fibrogram. Beltwide Cotton Conferences. New Orleans, LA.
40. Delhom*, C., Hequet, E.F., **Kelly, B.,** Martin*, V. 2019. HVI Elongation Round Trial Results. Beltwide Cotton Conferences. New Orleans, LA.
41. Morais*, J.P., **Kelly, B.,** and Hequet, E. 2019. Effects of Non-Lint Material on Heritability Estimates of Cotton Fiber Length Parameters. ASA-CSSA-SSSA International Annual Meeting, San Antonio, TX.
42. Vavra*, C., **Kelly, B.,** Jones, M., Marek, T., and Xu, W. 2019. Development and Characterization of Hardy-Cob Corn Inbreed Lines. ASA-CSSA-SSSA International Annual Meeting, San Antonio, TX.

43. Sayeed*, M., **Kelly, B.,** and Hequet, E. 2019. HVI Fibrogram: A Better Measurement of Cotton Fiber Length to Improve Yarn Quality Predictions. ASA-CSSA-SSSA International Annual Meeting, San Antonio, TX.
44. Hinds*, Z., **Kelly, B.,** and Hequet, E. 2019. Within Sample Variation in Fiber Length Distributions of Cotton (*Gossypium Hirsutum*). ASA-CSSA-SSSA International Annual Meeting, San Antonio, TX.
45. Hequet, E.F. and **Kelly, B.** 2020. Stability of HVI Calibration Standards for Bundle Elongation Measurements. Beltwide Cotton Conferences. Austin, TX.
46. Delhom*, C., Hequet, E.F., **Kelly, B.,** and Martin, V. 2020. Preliminary Results of Inter-Laboratory HVI Elongation Calibration Trials. Beltwide Cotton Conferences. Austin, TX.
47. **Kelly, B.,** Hequet, E.F., and Morais, J.P. 2020. Capturing the Potential for Fiber Breakage during Industrial Processing. Beltwide Cotton Conferences. Austin, TX.
48. Morais*, J.P., Hinds*, Z., **Kelly, B.,** and Hequet, E.F. 2020. Effects of Non-Lint Content and Processing on Heritability Estimates of Cotton Fiber Length Parameters. Beltwide Cotton Conferences. Austin, TX.
49. Hinds*, Z., **Kelly, B.,** and Hequet, E.F. 2020. Stability, Variation, and Application of AFIS Fiber Length Distributions. Beltwide Cotton Conferences. Austin, TX.
50. Tesema*, A.F., **Kelly, B.,** and Hequet, E.F. 2020. Evaluation of Short-Term and Long-Term Stability of HVI Fibrograms. Beltwide Cotton Conferences. Austin, TX.
51. Sayeed*, M.A., Hequet, E.F., and **Kelly, B.** 2020. Establishment and Validation of the Correction Procedure for the Fibrogram Measurements across Different HVIs. Beltwide Cotton Conferences. Austin, TX.
52. Smith, W., Hequet, E., **Kelly, B.**, Hague, S., Ullrich, A., Gendron, J. and Bhangu, D. 2020. Developing Improved Texas Upland Cotton Germplasm for Improved Yarn Quality. ASA-CSSA-SSSA International Annual Meeting, Pheonix, AZ. Virtual.
53. Hinds*, Z, **Kelly, B.**, Hequet, E., Wanjura, J. and Maeda, M. 2020. Improvement of Cotton Fiber Quality Using Obsolete Cultivars. ASA-CSSA-SSSA International Annual Meeting, Pheonix, AZ. Virtual.
54. C.W. Smith, S. Hague, A. Ulrich, J. Gendron, E.F. Hequet, **B. Kelly.** 2021. Progress Developing Improved Texas Upland Cotton Germplasm for Improved Yarn Quality. Beltwide Cotton Conference, January 5-7, 94
55. A.F. Tesema*, E.F. Hequet, **B. Kelly.** 2021. Repeatability of HVI Fibrograms across Multiple Instruments. Beltwide Cotton Conference, January 5-7, 131
56. K. Russell*, P. Dotray, **B. Kelly.** 2021. Does Low Rates of 2,4-D Affect Cotton Fiber Quality? Beltwide Cotton Conference, January 5-7, 131. Poster.
57. B. Shumate*, **B. Kelly**, J. Wanjura, M. Maeda. 2021. Variation and Uncertainty Analysis of Upland Cotton (Gossypium hirsutum) Production on the Texas High Plains. ASA-CSSA-SSSA International Annual Meeting, Salt Lake City, Utah. November 7-10.

58. C.W. Smith, E.F. Hequet, S. Hague, **B. Kelly**. 2021. Developing Upland Cotton for Modern Spinning Technology. ASA-CSSA-SSSA International Annual Meeting, Salt Lake City, Utah. November 7-10.
59. B. Shumate*, **B. Kelly**, J. Wanjura, M. Maeda. 2021. Variation and Uncertainty Analysis of Upland Cotton (Gossypium hirsutum) Production on the Texas High Plains. ASA-CSSA-SSSA International Annual Meeting, Salt Lake City, Utah. November 7-10. Poster.
60. B. Sapkota*, C.B. Adams, **B. Kelly**. 2021. Evaluating Cotton Yield and Lint Quality in Responses to Population Density and Stand Uniformity. ASA-CSSA-SSSA International Annual Meeting, Salt Lake City, Utah. November 7-10. Poster.
61. A.F. Tesema*, M.A. Sayeed, C.N. Turner, **B. Kelly**, E.F. Hequet. 2022. Procedure to Correct the High-Volume Instrument Fibrogram. Beltwide Cotton Conference. January 4-7. San Antonio, TX.
62. R. Heinrich*, B. Shumate*, **B. Kelly**, A.S. Da-Silva*, Y. Kocoglu*, H. Sari-Sarraf, A. Kabir*, A. Ray. 2022. A New Imaging Modality for High-Throughput Imaging of Cotton Fibers. Beltwide Cotton Conference. January 4-7. San Antonio, TX.
63. K. Russell*, P. Dotray, **B. Kelly**. 2022. Cotton Fiber Quality Response to Low Rates of 2,4-D. Beltwide Cotton Conference. January 4-7. San Antonio, TX.
64. B. Shumate*, **B. Kelly**, M. Maeda. 2022. Upland Cotton Variety Evaluation Trails on the Southern High Plains of Texas. Beltwide Cotton Conference. January 4-7. San Antonio, TX. Poster.
65. R. Heinrich*, J. Dever, **B. Kelly**. 2022. Breeding Gossypium hirsutum for Improved Verticillium Dahliae Resistance with an Elite Fiber Quality Profile. Beltwide Cotton Conference. January 4-7. San Antonio, TX.
66. **B. Kelly**. 2022. Cotton Fiber Quality Measurement. Great Plains Cotton Conference. March 2. Wichita, KS.
67. B. Shumate*, M. Maeda, **B. Kelly**, J. Bell. 2022. Effects of Cold Front on Cotton (*Gossypium hirsutum*) Production. ASA-CSSA-SSSA International Annual Meeting. November 9. Baltimore, MD.
68. R. Heinrich*, J. Dever, **B. Kelly**. 2022. Breeding *Gossypium hirsutum*, Cotton, for Verticillium Dahliae kleb. Resistance with an Elite Fiber Quality Profile. ASA-CSSA-SSSA International Annual Meeting. November 9. Baltimore, MD.
69. R. Heinrich*, B. Shumate*, **B. Kelly**, A.S. Da-Silva*, Y. Kocoglu*, H. Sari-Sarraf, A. Kabir*, A. Ray. 2022. An Imaging Modality for High-Throughput Assessment of Cotton (*Gossypium hirsutum*) Fiber Development. ASA-CSSA-SSSA International Annual Meeting. November 9. Baltimore, MD.
70. **B. Kelly**, C. Adams. 2022. Yield and Fiber Quality Impacts of Stand Uniformity and Population in Cotton. Texas State Support Committee Review. November 30. Lubbock, TX.
71. J. Dever, **B. Kelly**, T. Wheeler, D. Lopez. 2022. Improving West Texas Cotton. Texas State Support Committee Review. November 30. Lubbock, TX.

72. Lin, Z., Guo, W., Gill, N., Ritchie, G., **Kelly, B. R.**, & Song, X. 2022. Open Cotton Boll Detection using LiDAR Point Cloud and RGB Images. In Proceedings of the 15th International Conference on Precision Agriculture, Online. International Society of Precision Agriculture.
73. Shumate, B., Maeda, M., **Kelly, B.,** Bell, J. 2023. Impacts of Late Season Low Temperatures on Cotton (Gossypium hirsutum) Production. Beltwide Cotton Conferences. January 10-12. New Orleans, LA.
74. Heinrich, R., Dever, J., **Kelly, B.** Breeding *Gossypium hirsutum*, Cotton, for *Verticillium dahliae* Kleb. 2023. Resistance with an Elite Fiber Quality Profile. Beltwide Cotton Conferences. January 10-12. New Orleans, LA.
75. Heinrich, R., Shumate, B., **Kelly, B.**, Soares-Da-Silva, A., Kocoglu, Y., Sari-Sarraf, H., Kabir, A., Adhikari, N. and Ray, A. 2023. Exploration of a New Imaging Modality for Assessing Cotton Fiber Quality. Beltwide Cotton Conferences. January 10-12. New Orleans, LA.
76. Smith, W.C., Tolleson, M., **Kelly, B.**, Arain, K., Jamerson, T. 2023. Impact of Short Fiber Content and Propensity to Break in Upland Cotton. ASA-CSSA-SSSA International Annual Meeting. October 29-November 1. St. Louis, MO.
77. Shumate, B., Morais, J., **Kelly, B**. 2023. Variation in cotton yield and fiber quality across years and locations on the southern high plains of Texas. ASA-CSSA-SSSA International Annual Meeting. October 29-November 1. St. Louis, MO.
78. Ortiz, R., Shumate, B., **Kelly, B.**, Bell, J. Wanjura, J., Maeda, M. 2023. Late season cold temperatures impact on cotton (*Gossypium hirsutum*) production. ASA-CSSA-SSSA International Annual Meeting. October 29-November 1. St. Louis, MO.
79. J. Dever, **B. Kelly**, T. Wheeler, D. Lopez. 2023. Improving West Texas Cotton. Texas State Support Committee Review. November 30. Lubbock, TX.

International:

1. Hequet E.F., Baker* S., Turner C., **Kelly B.,** Sari-Sarraf H., Gordon S. 2016. Evolution of Cotton Fiber Quality: An Imperative for Future Market Needs. World Cotton Research Conference – 6. May 2-6, 2016. Goiania, Goias, Brazil.
2. Hequet E.F., Baker* S., Turner C., **Kelly B.,** Sari-Sarraf H., Gordon S. 2016. Breaking the Fiber Quality Ceiling: Limitations of Cotton Fibers Bundle Testing. International Cotton Conference. March 16-18, 2016. Bremen, Germany.
3. **Kelly B.,** Hequet E.F., Ayele* A. 2017. Limitations of HVI in cotton fiber quality research. 11° Congresso Brasileiro do Algodao, Maceió, Brazil.
4. **Kelly, B.** 2020. HVI Elongation: Laying the Foundations for a New Fiber Quality Measurement. Embrapa. Brazil.
5. **Kelly B.,** and Hequet E.F. 2022. Stability of HVI Calibration Standards for Bundle Elongation Measurements. World Cotton Research Conference. Cairo, Egypt.

Technical reports: total of ____

Other publications: total of __2__

1. **Kelly B.**, High Volume Instrument: Evaluating cotton fiber quality. Instructional Video. 2015.
2. **Kelly B.**, Cotton Facts. Amazon Alexa Skill. Hosted on Amazon Web Services. N. Virginia. 2017.

PRESENTATIONS AND LECTURES: total of _78___ (Since last promotion)

Date, Title, Organization, Place

1. January 5, 2015, An Evaluation of Improved FIAS Software, Beltwide Cotton Conference, San Antonio, TX
2. January 5, 2015, Stability of the High Volume Instrument (HVI) Elongation Measurement, Beltwide Cotton Conference, San Antonio, TX
3. January 5, 2015, Importance of Cotton Fiber Elongation in terms of Fiber Processing, Beltwide Cotton Conference, San Antonio, TX
4. January 5, 2015, Within-plant variability of cotton fiber quality, Beltwide Cotton Conference, San Antonio, TX
5. January 5, 2015, Investigating the Relationship between Cotton Fiber and Yarn Quality, Beltwide Cotton Conference, San Antonio, TX
6. Spring 2015, Measurement of Crop Quality, Grain, Fiber, and Oilseed Crops. Texas Tech University, Lubbock, TX
7. October 18. 2015, The Impacts of Environmental Variations on within Plant Cotton Fiber Quality, Association for the Advancement of Industrial Crops, Lubbock, TX
8. May 2, 2016, Evolution of Cotton Fiber Quality: An Imperative for Future Market Needs, World Cotton Research Conference, Goias, Brazil
9. March 16, 2016, Breaking the Fiber Quality Ceiling: Limitations of Cotton Fibers Bundle Testing, International Cotton Conference, Bremen, Germany.
10. November 6, 2016, The Impact of Variation in Cotton Fiber Maturity on the Estimation of Yield Components, ASA-CSSA-SSSA International Annual Meeting, Phoenix, Arizona.
11. November 6, 2016, A Method for Measuring Cotton Seed Compression Force as a Potential Indication of Propensity to Create Seed Coat Fragments, ASA-CSSA-SSSA International Annual Meeting, Phoenix, Arizona.
12. January 5, 2016, Extracting Cotton Fiber Maturity and Fineness from the AFIS Length Distribution, Beltwide Cotton Conference, New Orleans, U.S.A.
13. January 5, 2016, Within-plant Variation in the Number of Cotton (Gossypium hirsutum) Fibers per Seed Surface Area, Beltwide Cotton Conference, New Orleans, U.S.A.

14. January 5, 2016, An Evaluation of Cotton Fiber Cross-sections with the Image Analysis Software (FIAS), Beltwide Cotton Conference, New Orleans, U.S.A.
15. January 5, 2016, Calibration of the High Volume Instrument (HVI) Elongation Measurement, Beltwide Cotton Conference, New Orleans, U.S.A.
16. January 26, 2016, Developments in Cotton Fiber Measurements, Texas/Oklahoma Cotton Physiology Meeting, Austin, TX. -Invited
17. March 9, 2017, A high-throughput method for measuring cob structure and the correlation of chemical composition with compression strength, 59th Annual Maize Genetics Conference, St. Louis, MO.
18. January 4, 2017, The impact of fiber maturity on estimating the number of cotton (Gossypium hirsutum L.) fibers per seed surface area, Beltwide Cotton Conferences, Dallas, TX.
19. January 4, 2017, The Impact of Trash Content on Cotton Fiber Quality, Beltwide Cotton Conferences, Dallas, TX.
20. January 4, 2017, A Novel Method for Measuring Cotton Seed Compression as an Indication of Propensity to Create Seed Coat Fragments, Beltwide Cotton Conferences, Dallas, TX.
21. January 4, 2017, The Development of Cotton Fiber Elongation Reference Material, Beltwide Cotton Conferences, Dallas, TX.
22. January 31, 2017, Targeting Fiber Quality Development. Texas/Oklahoma Cotton Physiology Meeting, San Angelo, TX. -Invited
23. August 29, 2017, Limitations of HVI in cotton fiber quality research, 11° Congresso Brasileiro do Algodao, Maceió, Brazil. - Invited
24. October 22, 2017, Using the HVI to Characterize within Sample Variation in Cotton Fiber Length, ASA-CSSA-SSSA International Annual Meeting, Tampa, Florida.
25. October 22, 2017, Characterization of Cob Structural Integrity, Imagery Analysis, and Biochemical Composition of Corn Hybrids. ASA-CSSA-SSSA International Annual Meeting, Tampa, Florida.
26. December 6, 2017, The importance of cotton fiber quality, Nexgen Annual Meeting. Lubbock, TX. - Invited
27. January 3, 2018, Evaluating the Impact of Within-Plant Variability of Fiber Length Distribution on Yarn Quality of Upland Cotton Cultivars, Beltwide Cotton Conferences, San Antonio, TX.
28. January 3, 2018, Processing a Nursery: Evaluating the Utilization Potential of Early Generation Material, Beltwide Cotton Conferences, San Antonio, TX.
29. January 3, 2018, A New Approach to Characterize the Total within sample variation in fiber length: utilization of the whole fibrogram, Beltwide Cotton Conferences, San Antonio, TX.
30. January 3, 2018, Targeted Fiber Length Distribution for Improvement of Yarn Quality, Beltwide Cotton Conferences, San Antonio, TX.
31. January 3, 2018, Yarn Seed Coat Fragments Identification, Beltwide Cotton Conferences, San Antonio, TX.

32. January 3, 2018, Enhancing U.S. Cotton Classing with Varietal Data, Beltwide Cotton Conferences, San Antonio, TX.
33. January 3, 2018, A Comparison of Two Boll Sampling Strategies for Fiber Quality Improvement in a Pedigree Scheme. Beltwide Cotton Conferences, San Antonio, TX.
34. January 3, 2018, Impact of Breeding Methods on Fiber Length Distribution Improvement, Beltwide Cotton Conferences, San Antonio, TX.
35. January 31, 2018, Developments in Cotton Fiber Quality, Texas/Oklahoma Cotton Physiology Meeting, Lubbock, TX. - Invited
36. April 3, 2018, Cotton Fiber Characteristics and Fiber Research Update, Northeast Panhandle Cotton Conference, Perryton, TX. - Invited
37. July 17, 2018, Cotton Fiber Quality, Cotton Producers, Dumas, TX. -Invited
38. November 6, 2018, Evaluation of Cotton (Gossypium hirsutum) Fiber Propensity to Break in a Pedigree Scheme, ASA-CSSA-SSSA International Annual Meeting, Baltimore, MD.
39. November 6, 2018, Variation in AFIS Length Distributions of 8 F2 Cotton (Gossypium hirsutum) Populations, ASA-CSSA-SSSA International Annual Meeting, Baltimore, MD.
40. January 8-10, 2019. Exploring Variation in AFIS Length Distribution of 8 F2 Populations. Beltwide Cotton Conferences. New Orleans, LA.
41. January 8-10, 2019. Enhancing US Cotton Classing with Varietal Data. Beltwide Cotton Conferences. New Orleans, LA.
42. January 8-10, 2019. Using the HVI Fibrogram to Explain Variation in Yarn Quality. Beltwide Cotton Conferences. New Orleans, LA.
43. January 8-10, 2019. Evaluation of Cotton Fibers Propensity to Break in F3 Breeding Lines. Beltwide Cotton Conferences. New Orleans, LA.
44. January 8-10, 2019. HVI Elongation: Laying the Foundations for a New Fiber Quality Measurement. Beltwide Cotton Conferences. New Orleans, LA.
45. January 8-10, 2019. Calibration of the High Volume Instruments with the Whole Fibrogram. Beltwide Cotton Conferences. New Orleans, LA.
46. January 8-10, 2019. HVI Elongation Round Trial Results. Beltwide Cotton Conferences. New Orleans, LA.
47. January 30, 2019. Developments in cotton fiber measurements. TX/OK Physiology Conference. San Angelo, TX. Invited
48. January 25, 2019. The uses of cotton and the importance of fiber quality. Caprock Crop Production Conference. Muncy, TX. Invited
49. October 10, 2019. Transitioning technology from the lab into the early stages of commercialization. Department of Plant and Soil Science Seminar. Lubbock, TX. Invited.
50. October 15, 2019. BASF Research interest summary. The HUB. Lubbock, TX.
51. November 7th, 2019. Cotton fiber quality measurement. Crop Quest Information Quest. Amarillo, Texas. Invited.

52. November 11th, 2019. Effects of Non-Lint Material on Heritability Estimates of Cotton Fiber Length Parameters. ASA-CSSA-SSSA International Annual Meeting, San Antonio, TX.
53. November 12, 2019. Development and Characterization of Hardy-Cob Corn Inbreed Lines. ASA-CSSA-SSSA International Annual Meeting, San Antonio, TX.
54. November 12, 2019. HVI Fibrogram: A Better Measurement of Cotton Fiber Length to Improve Yarn Quality Predictions. ASA-CSSA-SSSA International Annual Meeting, San Antonio, TX.
55. November 12, 2019. Within Sample Variation in Fiber Length Distributions of Cotton (*Gossypium Hirsutum*). ASA-CSSA-SSSA International Annual Meeting, San Antonio, TX.
56. December 4, 2019. Elucidating the impact of fiber maturity on fiber length distribution and fiber breakage. Texas State Support Committee Meeting. USDA-ARS Plant Stress Lab. Lubbock, TX.
57. December 17, 2019. Fiber Quality. Winter Crops School. Stillwater, OK. Invited
58. January 9, 2020. Stability of HVI Calibration Standards for Bundle Elongation Measurements. Beltwide Cotton Conferences. Austin, TX.
59. January 9, 2020. Preliminary Results of Inter-Laboratory HVI Elongation Calibration Trials. Beltwide Cotton Conferences. Austin, TX.
60. January 9, 2020. Capturing the Potential for Fiber Breakage during Industrial Processing. Beltwide Cotton Conferences. Austin, TX.
61. January 9, 2020. Effects of Non-Lint Content and Processing on Heritability Estimates of Cotton Fiber Length Parameters. Beltwide Cotton Conferences. Austin, TX.
62. January 10, 2020. Stability, Variation, and Application of AFIS Fiber Length Distributions. Beltwide Cotton Conferences. Austin, TX.
63. January 10, 2020. Evaluation of Short-Term and Long-Term Stability of HVI Fibrograms. Beltwide Cotton Conferences. Austin, TX.
64. January 10, 2020. Establishment and Validation of the Correction Procedure for the Fibrogram Measurements across Different HVIs. Beltwide Cotton Conferences. Austin, TX.
65. August 7, 2020. HVI Elongation: Laying the Foundations for a New Fiber Quality Measurement. Embrapa. Brazil. Invited
66. January 6, 2021. Progress Developing Improved Texas Upland Cotton Germplasm for Improved Yarn Quality. Beltwide Cotton Conference. Online (Pandemic).
67. January 6, 2021. Repeatability of HVI Fibrograms across Multiple Instruments. Beltwide Cotton Conference. Online (Pandemic).
68. January 6, 2021. Does Low Rates of 2,4-D Affect Cotton Fiber Quality? Beltwide Cotton Conference. Online (Pandemic). Poster.

69. November 10, 2021. Variation and Uncertainty Analysis of Upland Cotton (Gossypium hirsutum) Production on the Texas High Plains. ASA-CSSA-SSSA International Annual Meeting, Salt Lake City, Utah.
70. November 10, 2021. Developing Upland Cotton for Modern Spinning Technology. ASA-CSSA-SSSA International Annual Meeting, Salt Lake City, Utah.
71. November 8, 2021. Variation and Uncertainty Analysis of Upland Cotton (Gossypium hirsutum) Production on the Texas High Plains. ASA-CSSA-SSSA International Annual Meeting, Salt Lake City, Utah. Poster.
72. November 8, 2021. Evaluating Cotton Yield and Lint Quality in Responses to Population Density and Stand Uniformity. ASA-CSSA-SSSA International Annual Meeting, Salt Lake City, Utah. Poster.
73. December 7, 2022. Understanding Cotton Fiber Quality. Texas Plant Protection Conference. College Station, TX. Invited.
74. January 5, 2022. Procedure to Correct the High-Volume Instrument Fibrogram. Beltwide Cotton Conference. San Antonio, TX.
75. January 5, 2022. A New Imaging Modality for High-Throughput Imaging of Cotton Fibers. Beltwide Cotton Conference. San Antonio, TX.
76. January 5, 2022. Cotton Fiber Quality Response to Low Rates of 2,4-D. Beltwide Cotton Conference. San Antonio, TX.
77. January 5, 2022. Upland Cotton Variety Evaluation Trails on the Southern High Plains of Texas. Beltwide Cotton Conference. San Antonio, TX. Poster.
78. January 5, 2022. Breeding Gossypium hirsutum for Improved Verticillium Dahliae Resistance with an Elite Fiber Quality Profile. Beltwide Cotton Conference. San Antonio, TX.

GRADUATE STUDENT COMMITTEES: (Since last promotion)

Completed:

Chaired: total of _3__

M.S.

1. Chang Chao — Completed in 2016. Non-thesis.
2. Sarah Dodd — Completed in 2021. Non-thesis.
3. Amanda Salcido-Herrera — Completed in 2023. Non-thesis.

4. Reagan Heinrich Completed in 2023. Breeding *Gossypium hirsutum*, Upland Cotton, for *Verticillium dahliae Kleb.* Resistance with an Elite Fiber Quality Profile.

Co-Chaired: total of ___8__

M.S.

1. Suman Lamichhane Completed in 2016. An Evaluation of Cotton Fiber Cross-sections with the Fiber Image Analysis Software (FIAS).
2. Scott Baker Completed in 2018. Within-Plant Variability of Upland Cotton Varieties in Multiple Environments.
3. Most Arifa Sultana Completed in 2018. Origin and implication of seed coat fragment contamination on yarn quality.
4. Rohan Brown Completed in 2019. Investigating the variability of cotton production in the U.S.A

Ph.D

1. Addissu Ayele Completed in 2017. Impacts of within-plant variability on fiber quality, fiber density and ring spun yarn quality of upland cotton cultivars.
2. Joao Paulo Morais Completed in 2020. Effects of trash and processing on cotton fiber quality measurements.
3. Md Abu Sayeed Completed in 2020. Improvement of the cotton fiber length measurements using High Volume Instrument (HVI) fibrogram.
4. Zachary Hinds Completed in 2020. Exploration and Improvement of Cotton Fiber Length Distribution
5. Addisu Tesema Ferede Completed in 2022. Enhancing the marketability of U.S. cotton through fiber length distribution improvement.
6. Cody Vavra Completed in 2023. Life Cycle Assessment of High Input Production Systems for Achieving Indigenous Food Sovereignty.

Committee member of: total of ___8___

M.S.

1. Kolby McCormick Completed in 2015. Crop Science. Improved testing methods for cotton breeders: Calibration of the high volume instrument (HVI) elongation measurement.
2. Cody Vavra Completed in 2018. Characterization of Agronomic and Physical Traits of HI-A Corn Hybrids of the Texas High Plains.
3. Scott Baker Completed in 2018. Within-plant variability of upland cotton varieties in multiple environments.

4. Ritchel Bueno Gannaban Completed in 2019. Identification of novel sources of variation for the improvement of cold germination ability and early seedling vigor in upland cotton (Gossypium hirsutumL.).

Ph.D.

1. Curtis Schaefer Completed in 2016. Cotton maturity and the irrigation timing paradigm.
2. Namanh Buiphu Completed in 2017. Understanding the molecular mechanism of cotton fiber initiation.
3. Xiaoxiao Liu Completed in 2017. Plant and Soil Sciences. Effect of different production practices on the development of verticillium wilt and cotton fiber quality.
4. Nothabo Dube Competed in 2018. 3-D High Throughput Cotton Phenotyping.
5. Chris Delhom Completed in 2022. High volume instrument measurement of cotton fiber elongation – history, calibration, and utility
6. Amee Bumguardner Completed in 2022. Optimizing Fertilizer Management and Irrigation in Cotton Cropping Systems.
7. Zhe Lin Completed in 2022. Application of unmanned aerial systems and deep learning in high-throughput plant phenotyping.
8. Kyle Russell Completed in 2023. Influence of 2,4-D on Susceptible Cotton

In progress:
Chair: total of __2__

M.S.

1. Logan Burleson
2. Abiye Ketema Anticipated Completion 2025

Ph.D.

1. Brooke Shumate Anticipated Completion 2024
2. Rebekah Ortiz Anticipated Completion 2028
3. Mehedi Hasan Anticipated Completion 2028

Co-Chair: total of __2___

M.S.

1. Jacob James Anticipated Completion 2019

Ph.D.

Committee member of: total of __5___

Ph.D.

1. Vikki Martin Anticipated Completion 2024
2. Juan Cantu Anticipated Completion 2023
3. Bandana Osti Anticipated Completion 2024

2. **UNDERGRADUATE ADVISING: (Since last promotion)**
    1. Brooke Shumate. Agriculture Education. Textile Performance Evaluation of Selected High Plains Cotton Varieties. Texas Tech University.

3. **TEACHING RESPONSIBILITIES: (Since last promotion)**
    1. Spring 2015. Instructor. Principles of Horticulture Lab.
    2. Fall 2015. PSS 5370 U.S. and Global Cotton Fiber-Textile Industries.
    3. Fall 2016. PSS 4100 Senior Seminar.
    4. Fall 2016. PSS 1100 Freshman and Transfer Seminar.
    5. Fall 2016. PSS 1321-02 Introduction to Agronomic Plant Science.
    6. Fall 2016. PSS 1321-01 Introduction to Agronomic Plant Science.
    7. Fall 2016. PSS 5370 U.S. and Global Cotton Fiber-Textile Industries.
    8. Fall 2017. PSS 4100-D01 Senior Seminar at a distance.
    9. Fall 2017. PSS 4100 Senior Seminar.
    10. Fall 2017. PSS 1321 Introduction to Agronomic Plant Science.
    11. Spring 2018. PSS 5380 Data-Driven Agricultural Research.
    12. Fall 2018. PSS 1321 Agronomic Plant Science.
    13. Fall 2018. PSS 4100-D01 Seminar.
    14. Fall 2018. PSS 4100 Seminar.
    15. Fall 2018. PSS 5370 U.S. and Global Cotton Fiber-Textile Industries.
    16. Fall 2019. PSS 4100-D01 Seminar.
    17. Fall 2019. PSS 1321 Agronomic Plant Science.
    18. Spring 2020. PSS 5380 Data-Driven Agricultural Research.
    19. Fall 2021. PSS 5370 U.S. and Global Cotton Fiber-Textile Industries.
    20. Fall 2021. PSS 5323 Environmental Crop Physiology.
    21. Fall 2021. PSS 5323-D01 Environmental Crop Physiology.
    22. Spring 2022. PSS 5380 Data-Driven Agricultural Research.
    23. Fall 2022. PSS 6001 Fundamentals of Food Sovereignty.
    24. Spring 2023. PSS 6001 Impacts of Late Season Low Temps. on Cotton Prod.
    25. Fall 2023. PSS 5370 U.S. and Global Cotton Fiber-Textile Industries.
    26. Fall 2023. PSS 6001 Cotton Fiber Structure & Measurement Methodologies.
    27. Spring 2024. PSS 5380 Data-Driven Agricultural Research.
    28. Spring 2024. Advanced Natural Fiber Phenomics.
    29. Spring 2024. Influence of cotton plant spacing on yield and quality.

See next page

FIVE YEAR SUMMARY OF TEACHING EVALUATIONS FOR BRENDAN KELLY

	Number of Students	Course objectives followed	Instructor effectiveness	Valuable learning experience
Spring 2015				
PSS 1411	28	4.65	4.81	4.77
Fall 2015				
PSS 5370	8	5	5	4.8
Fall 2016				
PSS 1100	20	4.6	4.2	4
PSS 1321-1	59	4.72	4.72	4.69
PSS 1321-2	20	5	5	5
PSS 4100	27	4.92	4.83	4.67
PSS 5370	10	5	5	4.83
Fall 2017				
PSS 1321	57	4.48	4.55	4.48
PSS 4100	30	4.47	4.42	4.16
PSS 5370	10	4.86	4.57	4.71
Spring 2018				
PSS 5380	10	4.75	4.62	4.75
Fall 2018				
PSS 1321	61	4.6	4.7	4.6
PSS 4100	24	4.5	4.4	4.1
PSS 5370	5	4.2	4.8	4.4
Fall 2019				
PSS 1321	34	4.3	4.2	4.3
Spring 2020				
PSS 5380	7	4.9	4.9	4.9
Fall 2021				
PSS 5323	14	4.57	4.71	4.79
PSS 5323-D01	24	4.1	4.1	4
Spring 2022				
PSS 5380	2	5	5	5
Fall 2023				
PSS5370	5	5	5	5

FIVE YEAR SUMMARY OF ONLINE TEACHING EVALUATIONS FOR BRENDAN KELLY

	N	D1	D2	D3	D4	D5	D6	D7	D8	D9
Fall 2017										
PSS 4100	4	No Eval	No Eval	No Eval	No Eval	No Eval	No Eval	No Eval	No Eval	No Eval
Fall 2018										
PSS 4100	7	5	5	5	4.75	4.75	5	5	4.75	5
Fall 2019										
PSS 4100	21	4.3	4.3	4	4.1	4.3	4.3	4.2	4.5	4.2

(D1. Objectives specified and followed, D2. Instructor Effective, D3. Valuable learning experience, D4. Interaction, D5 Technology was appropriate, D6. Available information helped solve technical problems, D7. Documentation for accessing electronically-delivered material was effective, D8. Registration procedures ran smoothly, D9. Advising available and adequate)

(Section C, continued)

Other Teaching Responsibilities (Since last Promotion)

GRANTS AND AWARDS:

2014 Grants $426,658 Funded ($160,162.40 Credited)

1. Co-PI, Elucidating the impact of processing on fiber elongation. Cotton Incorporated. $80,181. 50%
2. Co-PI, Elucidating the impact of fiber maturity on fiber length distribution and fiber breakage. Cotton Incorporated. $80,644. 50%
3. Co-PI, Improving Fiber Testing Methods for Cotton Breeders. Cotton Incorporated. $160,254. 30%
4. Co-PI, Effect of within-plant variability on fiber quality and spinning performances. Cotton Incorporated. $105,579. 30%

2015 Grants $634,978 Funded ($358,139 Credited)

1. Co-PI, Textile Performance Evaluation of Selected High Plains Cotton Varieties, Plains Cotton Growers, Inc. $45,000. 50%
2. PI, Improving Fiber Elongation of U. S. Germplasm, Texas State Support Committee. $27,500. 34%
3. Co-PI, Integrated Approach to Breeding for Enhanced Utilization of West Texas Cottons, Cotton Incorporated. $35,000. 33%
4. PI, Evaluation of fiber properties for Texas cotton breeders. Fibers Initiative. $90,000. 100%
5. PI, Evaluation of fiber properties for extension agents. Fibers Initiative. $12,000. 100%
6. Co-PI, Improving the Utilization of Cotton Fiber Length Distribution in Breeding. Cotton Incorporated. $160,152. 50%
7. Co-PI, Elucidating the Impact of Processing on Fiber Elongation, Cotton Incorporated. $80,080. 50%
8. Co-PI, Improving the Utility of Fiber Quality Parameters as a Screening Tool in Breeding Programs. Cotton Incorporated. $105,166. 50%
9. Co-PI, Elucidating the Impact of fiber maturity on fiber length distribution and fiber breakage. Cotton Incorporated. $80,080. 50%

2016 Grants $1,376,313.00 Funded ($668,226.79 Credited)

1. PI, Evaluation of fiber properties for Texas cotton breeders. Fibers Initiative. $90,000. 100%
2. PI, Evaluation of fiber properties for extension agents. Fibers Initiative. $12,000. 100%
3. PI, Evaluate new tools that could be beneficial for cotton breeders and develop breeder specific models to predict yarn quality. Fibers Initiative. $21,500. 100%

4. PI, Improving West Texas Cotton – Fiber Quality. Texas State Support Program. $25,189. 33%
5. Co-PI, Integrated approach to breeding for enhanced utilization of West Texas cotton. Cotton Incorporated. $32,500. 33%
6. Co-PI, Elucidating the impact of fiber maturity on fiber length distribution and fiber breakage. Cotton Incorporated. $80,016. 50%
7. Co-PI, Elucidating the impact of processing on fiber elongation. Cotton Incorporated. $80,026. 50%
8. Co-PI, Improving the utility of fiber quality parameters as a screening tool in breeding programs. Cotton Incorporated. $105,021. 50%
9. Co-PI, Enhancing the marketability of U.S. cotton through length uniformity improvement. Cotton Incorporated. $200,032. 50%
10. Co-PI, Maturity and Standard Fineness: determination, calibration, and use. Cotton Incorporated. $160,029. 33%
11. Co-PI, CIF: Improving fiber length uniformity through breeding. Cotton Incorporated. $30,000. 50%
12. PI, Textile performance evaluation of selected High plains cotton varieties. Plains Cotton Growers Association. $45,000. 60%
13. Co-PI, Project Revolution. $95,000. 33%
14. Co-PI, Project Revolution. $200,000. 33%
15. Co-PI, Project Revolution. $200,000. 50%

2017 Grants $1,078,828.68 Funded ($606,334.56 Credited)

1. PI, Textile Performance Evaluation of Selected High Plains Cotton Varieties. Plains Cotton Growers Assoc. $45,000.00. 50.00%
2. PI, Research Agreement IMAmt-N1-2017-V2. Instituto Matogrossense do Algodao. $200,000.00. 50.00%.
3. PI, Evaluation of fiber properties for Texas cotton breeders. Fibers Initiative. $86,400, 100%
4. PI, Evaluation of fiber properties for extension agents. Fibers Initiative. $11,520, 100%
5. PI, Evaluate new tools that could be beneficial for cotton breeders and develop breeder specific models to predict yarn quality. Fibers Initiative. $74,880, 100%
6. PI, Improving West Texas Cotton – Fiber Quality. Texas State Support Program. $24,902, 100%
7. Co-PI, Integrated approach to breeding for enhanced utilization of West Texas cotton. Cotton Incorporated. $33,151, 33%
8. Co-PI, Elucidating the impact of fiber maturity on fiber length distribution and fiber breakage. Cotton Incorporated. $80,016.00. 50.00%
9. Co-PI, Improving the utility of fiber quality parameters as a screening tool in breeding programs. Cotton Incorporated. $105,671.00. 50.00%
10. Co-PI, Enhancing the marketability of U.S. cotton through length uniformity improvement. Cotton Incorporated. $200,984.00. 50.00%

11. Co-PI, Enhancing the marketability of U.S. cotton through length uniformity improvement. Cotton Incorporated. $7,873.00. 50.00%
12. Co-PI, Maturity and standard fineness: determination, calibration, and use. Cotton Incorporated. $158,431.68. 33.00%
13. Co-PI, CIF - Improving Fiber Length Uniformity through Breeding. Cotton Incorporated. $50,000.00. 50.00%

2018 Grants $1,083,977 Funded ($524,386 Credited)

1. PI, Undergraduate Research Funding. Center for Active Learning and Undergraduate Engagement (CALUE). $1,000.00. 100.00% (PI). FUNDED.
2. PI, Textile Performance Evaluation of Selected High Plains Cotton Varieties. Plains Cotton Growers Assoc. $56,500. 30.00%
3. PI, Evaluation of fiber properties for Texas cotton breeders. Fibers Initiative. $86,400, 100%
4. PI, Evaluation of fiber properties for extension agents. Fibers Initiative. $11,520, 100%
5. PI, Evaluate new tools that could be beneficial for cotton breeders and develop breeder specific models to predict yarn quality. Fibers Initiative. $74,880, 100%
6. PI, Improving West Texas Cotton – Fiber Quality. Texas State Support Program. $24,902, 100%
7. Co-PI, Integrated approach to breeding for enhanced utilization of West Texas cotton. Cotton Incorporated. $33,151, 33%
8. Co-PI, Elucidating the impact of fiber maturity on fiber length distribution and fiber breakage. Cotton Incorporated. $80,018.00. 50.00%
9. Co-PI, Improving the utility of fiber quality parameters as a screening tool in breeding programs. Cotton Incorporated. $105,559.00. 50.00%
10. Co-PI, Enhancing the marketability of U.S. cotton through length uniformity improvement. Cotton Incorporated. $200,015.00. 40.00%
11. Co-PI, Maturity and standard fineness: determination, calibration, and use. Cotton Incorporated. $160,032. 33.00%
12. Co-PI, CIF - Improving Fiber Length Uniformity through Breeding. Cotton Incorporated. $50,000.00. 50.00%
13. Co-PI, Project Revolution. $200,000. 50%

2019 Grants $472,715 Funded ($382,672 Credited)

1. PI, CIF - Improving Fiber Length Uniformity through Breeding. Cotton Incorporated. $22,000.00. 100%
2. PI, Targeting fiber quality attributes for the fiber of the future. Cotton Incorporated. $99,999.00. 75%
3. PI, Textile Performance Evaluation of Selected High Plains Cotton Varieties. Plains Cotton Growers Assoc. $56,500. 50%
4. PI, I-Corps: A fibrogram based method for the rapid assessment of within sample variation in fiber length. National Science Foundation. $50,000. 100%

5. PI, Improving West Texas Cotton – Fiber Quality. Texas State Support Program. $25,000, 100%
6. Co-PI, Integrated approach to breeding for enhanced utilization of West Texas cotton. Cotton Incorporated. $33,216, 20%
7. PI, Evaluation of fiber properties for Texas cotton breeders. Fibers Initiative. $86,500, 100%
8. PI, Evaluation of fiber properties for extension agents. Fibers Initiative. $11,500, 100%
9. PI, Evaluate new tools that could be beneficial for cotton breeders and develop breeder specific models to predict yarn quality. Fibers Initiative. $74,000, 100%
10. Co-PI, Yield and Fiber Quality Impacts of Stand Population and Uniformity in Cotton. Texas State Support Program. $14,000, 27%

2020 Grants

1. PI, Textile Performance Evaluation of Selected High Plains Cotton Varieties. Plains Cotton Growers Assoc. $56,500. 50%
2. PI, Improving West Texas Cotton – Fiber Quality. Texas State Support Program. $25,000, 100%
3. Co-PI, Yield and Fiber Quality Impacts of Stand Population and Uniformity in Cotton. Texas State Support Program. $14,000, 27%
4. Co-PI, A Cotton-Focused Training Opportunity: From Seed to Yarn. Texas State Support Program. $25,000
5. PI, Targeting fiber quality attributes for the fiber of the future. Cotton Incorporated. $100,000. 75%.
6. PI, Evaluation of fiber properties for Texas cotton breeders. Fibers Initiative. $85,500, 100%
7. PI, Evaluation of fiber properties for extension agents. Fibers Initiative. $11,500, 100%
8. PI, Evaluate new tools that could be beneficial for cotton breeders and develop breeder specific models to predict yarn quality. Fibers Initiative. $71,646, 100%
9. PI, Development and use of cotton fiber quality measurements and their implications on yarn and fabric performance. USDA-NIFA; HATCH. $26,000. 100%.

2021 Grants

1. PI, Textile Performance Evaluation of Selected High Plains Cotton Varieties. Plains Cotton Growers Assoc. $56,500. 50%
2. PI, Improving West Texas Cotton – Fiber Quality. Texas State Support Program. $25,000, 100%
3. Co-PI, Yield and Fiber Quality Impacts of Stand Population and Uniformity in Cotton. Texas State Support Program. $14,000, 27%
4. Co-PI, A Cotton-Focused Training Opportunity: From Seed to Yarn. Texas State Support Program. $28,000. 50%.

5. PI, Targeting fiber quality attributes for the fiber of the future. Cotton Incorporated. $100,000. 75%.
6. PI, Evaluation of fiber properties for Texas cotton breeders. Fibers Initiative. $85,500, 100%
7. PI, Evaluation of fiber properties for extension agents. Fibers Initiative. $11,500, 100%
8. PI, Evaluate new tools that could be beneficial for cotton breeders and develop breeder specific models to predict yarn quality. Fibers Initiative. $71,646, 100%
9. PI, Development and use of cotton fiber quality measurements and their implications on yarn and fabric performance. USDA-NIFA; HATCH. $26,000. 100%.

2022 Grants ($410,000 Credited)

1. Co-PI, Linking Pollinators, Resources and Soil Health in Working Farms. USDA-NIFA; SARE. $5,000. 50%. $2,500.
2. PI, Textile Performance Evaluation of Selected High Plains Cotton Varieties. Plains Cotton Growers Assoc. $56,500. 50%. $28,250
3. PI, Improving West Texas Cotton – Fiber Quality. Texas State Support Program. $25,000, 100%. $25,000
4. Co-PI, A Cotton-Focused Training Opportunity: From Seed to Yarn. Texas State Support Program. $28,000. 50%. $14,000
5. PI, Targeting fiber quality attributes for the fiber of the future. Cotton Incorporated. $100,000. 75%. $43,500.
6. PI, Evaluation of fiber properties for Texas cotton breeders. Fibers Initiative. $85,500, 100%. $85,500.
7. PI, Evaluation of fiber properties for extension agents. Fibers Initiative. $11,500, 100%. $11,500
8. PI, Evaluate new tools that could be beneficial for cotton breeders and develop breeder specific models to predict yarn quality. Fibers Initiative. $74,000, 100%. $74,000.
9. PI, Development and use of cotton fiber quality measurements and their implications on yarn and fabric performance. USDA-NIFA; HATCH. $26,000. 100%. $26,000.
10. PI, Rapid test for developing high value hemp and other natural fibers. USDA-NIFA. $100,000. 100%. $100,000

2023

1. PI, Kelly, Brendan, Longing, Scott, Deb, Sanjit, Irlbeck, Erica, McCallister, Donna, "Sustainable cotton (*Gossypium hirsutum*) production," Project Revolution. $600,000.
2. Co-PI, Longing, Scott, Kelly, Brendan, McIntyre, Nancy, Laubmeier, Amanda, Pan, Aaron, "Advancing biodiversity research to support transdisciplinary conservation innovation in Texas' ecosystems," Davis College of Agricultural Sciences and Natural Resources. $249,368.

3. Co-PI, Young, Joey, Kelly, Brendan. “Developing Machine Learning Tool for Turfgrass Management Professionals.” Texas A&M Research Foundation. $6,000.
4. PI, Kelly, Brendan, "Rapid test for developing high value hemp and other natural fibers," USDA-SBIR. $100,000.
5. PI, Kelly, Brendan, "Evaluation of fiber properties for Texas extension agents," Fibers Initiative. $11,500.
6. PI, Kelly, Brendan, "Evaluate new tools that could be beneficial for cotton breeders," Fibers Initiative. $74,000.
7. PI, Kelly, Brendan, "Evaluation of fiber properties for Texas cotton breeders," Fibers Initiative. $85,500.
8. PI, Textile Performance Evaluation of Selected High Plains Cotton Varieties. Plains Cotton Growers Assoc. $56,500. 50%. $28,250
9. PI, Kelly, Brendan, "A cotton focused training opportunity," Texas State Support. $28,000.
10. PI, Kelly, Brendan, "Development and use of cotton fiber quality measurements and their implications on yarn and fabric performance.," USDA-HATCH. $26,000.
11. PI, Kelly, Brendan, "Improving West Texas Cotton - Fiber Quality," Texas State Support. $25,000.

Pending:

2023

1. PI, Understanding PFAS bioaccumulation in the Osage Nation food-web in support of food sovereignty. Environmental Protection Agency. $1,599,759.
2. PI, Breeding for the Future of Cotton Production: Quality Demands, Breeder Limits, and Production Challenges. USDA-NIFA. $125,308.

Rejected:

2015

1. Co-PI, International University Partnership for the Establishment of Postgraduate Programmes in Ethiopia-Lot 1. British Council. $1,361,520.

2016

1. Co-PI, Biological reactions with In-situ Resources to enable Habitation of Space (BIRTHS). NASA. Space Technology – Research, Development, Demonstration, and Infusion 2016 (SpaceTech–REDDI–2016), NNH16ZOA001N. $3,000,000 for 5 years.

2018

1. Co-PI, Stress-tolerant and value-added corn inbred lines and hybrids for new cropping system. Texas A&M AgriLife Research Cropping Systems Program. $132,000.00.

2022

1. PI, Collaborative Research: Partnership for conserving Osage Nation tallgrass prairie biodiversity and promoting Osage STEM engagement through bison grazing. NSF. $2,000,000.
2. PI, TRTech-PGR: Deciphering the Genetic and Molecular Bases of U.S. Upland Cotton Fiber Traits by Development and Integrated Analysis of Its Genome, Transcriptome, and Phenome. National Science Foundation. $643,370.
3. Co-PI, RECON: Rubber Evolution through Crop Optimization for National Security. USDA-NIFA. $1,683,515.

2023

1. Co-PI, Building a Drought Monitoring Machine Learning Tool for Golf Course Management. United States Golf Association. $110,558.

(Section C, continued)
SERVICE TO PROFESSIONAL ORGANIZATIONS (Since last promotion)
National:

1. 2018-2019. Participant, Frank N. Meyer Medal for Plant Genetic Resources Breakfast and Award.
2. 2019. CSSA Session Moderator, C08 Plant Genetic Resources.
3. 2019-2020. ASA Community Vice Chair, Cotton and Other Fiber Crops
4. 2020-2021. ASA Community Chair, Cotton and Other Fiber Crops
5. Reviewer for various journals.

Regional:

1. 2023 Texas Cotton FFA State Superintendent. Hosted 162 teams. 597 students.
2. 2018-present. Treasurer, West Texas Ag Chemical Institute
3. 2018-present. Chair, WTACI student presentation committee
4. 2015-present. Member, West Texas Cotton Quality Improvement Group

State:

OTHER PROFESSIONAL SERVICE: (Since last promotion)
CONSULTING ACTIVITIES: (Since last promotion)
SERVICE TO: (Since last promotion)
For the following, list boards of directors, committees served on (chaired), officer, editor, advisor, or other positions held, field days or workshops organized, and other relevant activities that illustrate service activities. Follow the numbered list format.
UNIVERSITY:

1. 2016-Present. Reviewer, TTU Scholarship Review Committee
2. 2016. Poster Reviewer, Undergraduate Research Conference
3. 2019. Presenter, BASF Project Revolution Research Roundtable
4. 2019. Participant, Grant writers' workshop
5. 2018-2021. Faculty mentor, TTU representative. Coalition for Advanced Bioeconomy Leadership Education (CABLE)
6. 2021. Electrical and Computer Engineering Graduate Program Review.
7. 2022. Animal and Food Science Graduate Program Review.
8. 2023. Dean’s representative.
9. 2023. TTU HUB Faculty Judge.

COLLEGE:

1. 2018. Attendee. Research Dean Interviews, Interview Seminars.
2. 2019. Member. Department of Plant and Soil Science chair search committee.
3. 2022. Attendee. Davis College Dean Interviews, Interview Seminars.
4. 2023. Julia Shamshina tenure committee.

DEPARTMENT:

1. 2015-present. Host for various faculty position candidates.
2. 2015-present. Member; PSS curriculum committee

3. 2015-present. Member; PSS website committee
4. 2018-2020. Faculty advisor, PSS graduate student club
5. 2019-present. Faculty advisor, PSS seminar committee
6. 2022 Judge, PSS research symposium.
7. 2022. Member. Department of Plant and Soil Science faculty search committee.

COMMUNITY:

INDUSTRY:

1. 2018. Workshop for the USDA-AMS cotton classing school
2. 2019. November 7 – CQIQ
3. 2019. December 17 – Winter Crops School. Stillwater, OK
4. 2019. Workshop for the USDA-AMS cotton classing school
5. 2015-present. Plains Cotton Growers bi-monthly meetings
6. 2023. USDA Grant Reviewer.
7. 2023. March 6-7. SLC cotton producers from Brazil.

OTHER:

Founding partner of Dynamic Fiber Systems LLC.