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### **H.D.R. Thesis**

H1. E.F.Hequet. 2004. La fibre de coton du champ aux étoffes : Synthèse des travaux (Cotton fibers: From field to fabric). ENSITM – Haute-Alsace University.

### **Ph.D. Thesis**

T1. E.F. Hequet. 2003. Implication of the Origin of Honeydew Contamination on Stickiness Measurements and Fiber Processing. 03MULH0722. ENSITM - Haute-Alsace University, France.

### **Patents**

- P1. E. **Hequet**, N. Abidi. Cotton Stickiness Evaluation by Means of Multi-Temperature Testing. US 6,520,007 B2. February 18, 2003.
- P2. H. Sari-Sarraf, E. F. **Hequet**, A. Pai. Identification of Cotton Contaminants with X-Ray Microtomographic Image Analysis. US 6,870,897 B2. March 22, 2005.
- P3. H. Sari-Sarraf, E. F. **Hequet**, C. Turner, A. Zhu. Fabric Wrinkle Evaluation. US 7,601,978. October 13, 2009.
- P4. N. Abidi, E. **Hequet**. Detection and Mapping of Stickiness Contamination in Cotton by Means of Mid-Infrared Spectroscopy. TTU D-0456. Provisional Patent Application. February 2004.
- P5. S. Kamalakannan, M. Hill, A. Gururajan, M. Shahriar, H. Sari-Sarraf, and E. F. **Hequet**. GPU-Based Machine Vision System for Simultaneous Measurement of Shrinkage and Soil Release in Fabrics. Provisional patent application 61/359,607, June 2010.
- P6. Sari-Sarraf H., E.F. **Hequet**, Yu C., and Dema M. Machine Vision System for Quantifying Moisture Transport through Fabrics. Invention disclosure D-1067 A. March 2014.
- P7. Kelly B., E.F. **Hequet**, Md. Sayeed, Z. Hinds. System and Method for Fibrogram Fiber Quality Evaluation. Provisional patent 62585206. November 2017.

## Refereed journal articles

- R1. Guibordeau P., E. **Hequet**. 1985. Study of F1 hybrids derived from interspecific crosses between two varieties of *Gossypium hirsutum* and one variety of *G. barbadense*. Analysis of some fiber traits, *Coton et Fibres Tropicales*, 40(4) 169-186.
- R2. Girardot B., E. **Hequet**, M.T. Yehouessi, P. Guibordeau. 1986. Finding a variety of *Gossypium hirsutum* L. resistant to strains of *Xanthomonas campestris* pv. *malvacearum* (Smith) Dye virulent on associations of major genes (B2-B3 or B9L-B10L), *Coton et Fibres Tropicales*, 41(1) 67-69.
- R3. Bachelier B., E. **Hequet**, E. Ousmane. 1992. Study of a diallel cross for resistance to bacterial blight (*X. campestris* pv. *malvacearum* [ Smith ] Dow.) in cotton (*G.hirsutum* L.), *Coton et Fibres Tropicales*, 47(3) 173-182.
- R4. Frydrych R., E. Gozé, E. **Hequet**. 1993. Effect of relative humidity on the results obtained with the thermodetector, *Coton et Fibres Tropicales*, 48(4) 305-311.
- R5. Frydrych R., E. **Hequet**, M. Vialle. 1993. Effect of storage on cotton stickiness potential - Incidence du stockage sur l'évolution du potentiel de collage des cotons, *Coton et Fibres Tropicales*, 48(3) 207-212.
- R6. Kaewprasit C, E. **Hequet**, N. Abidi, J.P. Gourlot. 1998. Application of methylene blue adsorption to cotton fiber specific area measurement: part I. Methodology, *Journal of Cotton Science*, 2(4) 164-173.
- R7. Auld D.L., E. Bechere, M.D. Ethridge, W. D. Becker, E. **Hequet**, R. G. Cantrell. 2000. Registration of TTU 202-1107-B and TTU 271-2155-C. Mutant germplasm lines of Upland cotton with improved fiber quality, *Crop Sci.*, 40:1835-1836.
- R8. **Hequet** E., N. Abidi. 2002. High-speed stickiness detector measurement: Effect of temperature settings and relative humidity, *The Journal of Cotton Science*, 6 (1) 68-76.
- R9. **Hequet** E., N. Abidi. 2002. Processing sticky cotton: Implication of trehalulose in residue build-up, *The Journal of Cotton Science*, 6 (1) 77-90.
- R10. Sari-Sarraf H., E. F. **Hequet**, N. Abidi, Y. Dai, H. Y. Chan. 2002. Automatic measurement of fabric shrinkage, *AATCC review*, 2(10) 20-23.
- R11. Turner C.N., H. Sari-Sarraf, E.F. **Hequet**, N. Abidi and S.H. Lee. 2004. Preliminary validation of a fabric smoothness assessment system, *Journal of Electronic Imaging*, 13(3) 418-427.
- R12. Pai A., H. Sari-Sarraf, E.F. **Hequet**. 2004. Recognition of cotton contaminants via X-ray microtomographic image analysis, *IEEE Trans. On industry Applications*, 40(1) 77-85.

- R13. Abidi N. and E. **Hequet**. 2004. Cotton Fabric Graft Copolymerization using Microwave Plasma. Part I: UATR-FTIR Study, *J. Appl. Polym. Sci.*, 93(1) 145-154.
- R14. Herring A.D., D. L. Auld, M. D. Ethridge, E. F. **Hequet**, E. Bechere, C. J. Green and R. G. Cantrell. 2004. Inheritance of fiber quality and lint yield in a chemically mutated population of cotton, *Euphytica*, 136: 333-339.
- R15. Abidi N., C.N. Turner, E.F. **Hequet**, H. Sari-Sarraf. 2005. Objective evaluation of durable press treatment and fabric smoothness rating, *Textile Research Journal*, 75(1) 19-29.
- R16. Abidi N., E. **Hequet**, C. Turner, and H. Sari-Sarraf. 2005. FTIR Analysis of Crosslinked Cotton Using a ZnSe-Universal Attenuated Total Reflectance, *J. Appl. Polym. Sci.*, 96(2) 392-399.
- R17. Abidi N., and E. **Hequet**. 2005. HPLC of insect honeydew deposits collected from the high speed stickiness detector. *Textile Research Journal*, 75(4), 362-370.
- R18. Abidi N. and E. **Hequet**. 2005. Cotton fabric graft copolymerization using microwave Plasma. II. Physical Properties, *J. Appl. Polym. Sci.*, 98, 896-902.
- R19. **Hequet** E., N. Abidi, and D. Ethridge. 2005. Processing Sticky Cotton: Effect of Stickiness on Yarn Quality, *Textile Research Journal*, 75(5) 402-410.
- R20. **Hequet** E., N. Abidi. 2005. Effects of the Origin of the Honeydew Contamination on Cotton Spinning Performances, *Textile Research Journal*, 75(10) 699-709.
- R21. Abidi N., E. **Hequet**. 2005. Fourier Transform Infrared analysis of trehalulose and sticky cotton yarn defects using ZnSe-Diamond UATR, *Textile Research Journal*, 75(9) 645-652.
- R22. Barton F.E., J.D. Barger, G.R. Gamble. D.L. McAlister, E.F. **Hequet**. 2005. Analysis of sticky cotton by near-infrared spectroscopy. *Applied spectroscopy*, 59(11) 1388-1392.
- R23. Sun Y., S Veerabomma, M Fokar, N Abidi, E Hequet, RD Allen. 2005 Brassinosteroid signaling affects secondary cell wall deposition in cotton fibers, *Plant Cell Physiol.* 46(8): 1384-1391.
- R24. Tarimala S., N. Kothari, N. Abidi, E. **Hequet**, J. Fralick, L. Dai. 2006. New Approach to Antibacterial Treatment of Cotton Fabric with Silver Nanoparticles-doped Silica Using Sol-gel Process. *Journal of Applied Polymer Science*, 101(5) 2938 – 2943.
- R25. **Hequet** E., B. Wyatt, N. Abidi, D.P. Thibodeaux. 2006. Creation of a set of reference material for cotton fiber maturity measurements. *Textile Research Journal*, 76(7) 576-586.
- R26. N. Abidi, E. **Hequet**, and D. Ethridge. 2006. Thermogravimetric Analysis of Cotton Fibers: Relationships with Maturity and Fineness. *Journal of Applied Polymer Science*, 103(6), 3476-3482.

- R27. Abidi N., E. **Hequet**, S. Tarimala, L. Dai. 2007. Cotton Fabric Surface Modification for Improved UV-radiation Protection Using Sol-Gel Process. *Journal of Applied Polymer Science*. 104(1) 111-117.
- R28. Abidi N., E. **Hequet**. 2007. Thermogravimetric Analysis of Cotton fibers and Relationships with their Physical Properties. *Journal of Applied Polymer Science*, 103 (6), 3476-3482.
- R29. Abidi N., E. **Hequet**. 2007. FTIR Analysis of Cotton Contamination. *Textile Research Journal*, 77(2) 77-84.
- R30. Bechere E., D. Auld, R. Cantrell, E. **Hequet**, M. Krifa, S. Misra, W. Smith. 2007. Registration of TTU 0774-3-3 and TTU 0808-1-6-1 Upland Cotton Germplasm Lines with Improved Fiber Length and Strength, *Journal of Plant Registration*, 1(1):58-59.
- R31. D. Auld, Bechere E., M. Krifa, H. Kebede, E. **Hequet**, E. Wright, S. Misra. 2007. Registration of "Raider 276" (Holland 338-276-1-3-4), a High Yielding, Improved Quality Upland Mutant Cotton Cultivar, *Journal of Plant Registration*, 1(2): 115-116.
- R32. Haigler C. H., B. Singh, D. Zhang, S. Hwang, C. Wu, X. Cai, M. Hozain, W. Kang, B. Kiedaisch, R. Strauss, E. **Hequet**, B. Wyatt, G. Jividen, S. Holaday. 2007. Transgenic cotton over-producing spinach phosphate synthase showed enhanced leaf sucrose synthesis and improved fiber quality under controlled environmental conditions. *Plant Molecular Biology*, 63:815-832.
- R33. Abidi N., E. **Hequet**, S. Tarimala. 2007. Functionalization of cotton fabric with vinyltrimethoxysilane. *Textile Research Journal*. 77(9): 668-674.
- R34. Benzina H., E. **Hequet**, N. Abidi, J-Y. Drean, O. Harzallah. 2007. Using Fiber Elongation to Improve Genetic Screening in Cotton Breeding Programs. *Textile Research Journal*, 77(10): 770-778.
- R35. Gururajan A., H. Sari-Sarraf, E. F. **Hequet**. 2008. Statistical Approach to Unsupervised Defect Detection and Multi-Scale Localization in Two-Texture Images. *Optical Engineering* 47(2), 027202-1-10.
- R36. Abidi N., E. **Hequet**, L. Cabrales, J. Gannaway, T. Wilkins, L.W. Wells (2008). Evaluating Cell Wall Structure and Composition of Developing Cotton Fibers using Fourier Transform Infrared Spectroscopy and Thermogravimetric Analysis. *Journal of Applied Polymer Science*, 107(1): 476-486.
- R37. Gururajan A., E. F. **Hequet**, and H. Sari-Sarraf. 2008. Objective Evaluation of Soil Release in Fabrics. *Textile Research Journal*, 78(9): 782-795.

- R38. Wang H., C. Mao, H. Sari-Sarraf, and E. F. **Hequet**. 2008. Accurate Length Measurement of Multiple Cotton Fibers. *Journal of Electronic Imaging*, (17), 031110, DOI:10.1117/1.2952846.
- R39. Gardunia B.W., C. Braden, E. **Hequet**, C.W. Smith. 2008. Applying quantile regression to analysis of AFIS cotton fiber distribution. *Crop Science*, (48) 1328-1336.
- R40. Smith C.W., S. Hague, E. **Hequet**, P.S. Thaxton, and N. Brown. 2008. Development of Extra-Long Staple Upland Cotton. *Crop Science*,(48) 1823-1831.
- R41. Smith C.W., P. S. Thaxton, S. Hague, E. **Hequet**, and D. Jones. 2008. Registration of TAM 01E-22 Upland Cotton Germplasm Line with Improved Fiber Bundle Strength, *Journal of plant registrations*, 2(2):129-131.
- R42. Bechere E., D.L. Auld, E. **Hequet**. 2009. Development of “naked-tufted” seed coat mutants for potential use in cotton production. *Euphytica*. DOI 10.1007/s10681-009-9890-y
- R43. Xu B., X. Yao, P. Bel, E. **Hequet**, and B. Wyatt. 2009. High Volume Measurements of Cotton Maturity by a Customized Microscopic System. *Textile Research Journal*, 79(10) 937-946.
- R44. Braden C.A., C.W. Smith, and E.F. **Hequet**. 2009. Combining Ability of Near-Long Staple Upland Cotton, *Crop Science*, 49:756-762.
- R45. Smith C.W., S. Hague, P.S. Thaxton, E. **Hequet**, and D. Jones. 2009, Registration of eight extra long staple upland cotton germplasm lines, *Journal of plant registrations*, 3(1):81-85
- R46. Smith C.W., C.A. Braden, and E. **Hequet**. 2009. Generation Mean Analysis of Near Long Staple Fiber Length in TAM 94L-25 Upland Cotton, *Crop Science*, 49:1638-1646
- R47. Abidi N., L. Cabrales, E. **Hequet**. 2009. Functionalization of Cotton Fabric Surface with Titania Nanosols: Applications for Self Cleaning and UV Protection Properties. *ACS Applied Materials & Interfaces*, 1(10) 2141-2146, DOI: 10.1021/am900315t.
- R48. Smith, C. W., C.A. Braden, and E.F. **Hequet**. 2010. Genetic analysis of fiber length uniformity in upland cotton. *Crop Science*, 50:567-573
- R49. Feng L., Mills C.I., **Hequet** E.F., Bordovsky J.P., Keeling W., Boman R., and Bednarz C.W. 2010. Effects of Irrigation and Seeding Rate on Cotton Within-boll Yield Components. *Agronomy Journal* 102 (3) 1032-1036.
- R50. Cui M., A. Gururajan, H. Sari-Sarraf, and E. **Hequet**. Machine Vision Scheme for Stain Release using Gabor Filters with optimized Coefficients. 2010. *Machine Vision and Applications*. DOI 10.1007/s00138-010-0295-7

- R51. Kamalakannan S., M. Hill, A. Gururajan, M. Shahriar, H. Sari-Sarraf, and E. **Hequet**. 2010. GPU-Based Machine Vision System for Simultaneous Measurement of Shrinkage and Soil Release in Fabrics. *Journal of Electronic Imaging*, 19 (2) 023007.
- R52. Abbott A.M., E. F. **Hequet**, G. J. Higginson, S.R. Lucas, G.R.S. Naylor, M. M. Purmalis, and D.P. Thibodeaux. 2010. Performance of the Cottonscan™ instrument for measuring the average fiber linear density (fineness) of cotton lint samples. *Textile Research Journal* 80(9) 822-833.
- R53. Joy K., C. W. Smith, E. **Hequet**, S. Hague, P.S. Thaxton, and C. Souder. 2010. Fiber Properties and Mini-spun Yarn Performance of Extra Long Staple Upland Cotton. *Journal of Cotton science* 14:82-90.
- R54. N. Abidi, L. Cabrales, and E. **Hequet**. 2010. Fourier Transform Infrared Spectroscopic Approach to the Study of the Secondary Cell Wall Development in Cotton Fiber. *Cellulose*, 17:309-320.
- R55. N. Abidi, L. Cabrales, and E. **Hequet**. 2010. Changes in Sugar Composition and Cellulose Content during the Secondary Cell Wall Biogenesis in Cotton Fibers. *Cellulose*, 17:153-160.
- R56. N. Abidi, L. Cabrales, and E. **Hequet**. 2010. Thermogravimetric Analysis of Developing Cotton Fibers. *Thermochimica Acta*, 498 (1-2) 27-32.
- R57. Smith C.W., S. Hague, E. F. **Hequet**, and D. Jones. Registration of TAM B139-17 ELS Upland Cotton. 2011. *Journal of Plant Registration*. 5 (1) 113-117.
- R58. Smith C.W., S. Hague, Eric F. **Hequet**, and D. Jones. Registration of TAM 04 O-16L Long Staple Upland Cotton with Improved Strength. 2011. *Journal of Plant Registration*. 5 (1) 109-112.
- R59. Feng L., V.B. Bufon, C.I. Mills, E. **Hequet**, J. P. Bordovsky, W. Keeling, R. Boman, and C.W. Bednarz. 2011. Effects of Irrigation, Cultivar, and Plant Density on Cotton Within-Boll Fiber Quality. *Agronomy Journal*. 103:297-303.
- R60. Hill M., S. Kamalakannan, A. Gururajan, H. Sari-Sarraf, and E. F. **Hequet**. 2011. Dimensional Change Measurement and Stain Segmentation in Printed Fabrics. *Textile Research Journal*. 81(16) 1655-1672.
- R61. Faulkner W.B., J.D. Wanjura, E.F. **Hequet**, R.K. Boman, B.W. Shaw, and C.B. Parnell. 2011. Evaluation of Modern Cotton Harvest Systems on Irrigated Cotton: Fiber Quality. *Applied Engineering in Agriculture*. 27(4) 507-513.
- R62. Faulkner W.B., J.D. Wanjura, E.F. **Hequet**, R.K. Boman, B.W. Shaw, and C.B. Parnell. 2011. Evaluation of Modern Cotton Harvest Systems on Irrigated Cotton: Yarn Quality. *Applied Engineering in Agriculture*. 27(4) 523-532.

- R63. Smith C.W., S. Hague, E.F. **Hequet**, and D. Jones. 2011. Registration of TAM 04WB-33s Upland Cotton with Improved Fiber and Yarn Properties. *Journal of Plant Registrations*. 5 (3) 388-392.
- R64. Abbott A.M., E.F. **Hequet**, G.J. Higginson, S.R. Lucas, G.R.S. Naylor, and D.P. Thibodeaux. 2011. Precision of the upgraded Cottonscan<sup>TM</sup> instrument for measuring the average fiber linear density (fineness) of cotton lint samples. *Textile Research Journal*, December 2011; vol. 81, 20: pp. 2180-2183.
- R65. Gururajan A., H. Sari-Sarraf, and E. **Hequet**. 2012. Generalized framework for a user-aware interactive texture segmentation system. *J. Electron. Imaging* 21, 033017 (2012), DOI:10.1117/1.JEI.21.3.033017
- R66. Gregory K., E. Ng, W. Smith, E. **Hequet**, and S. Hague. 2012. Fiber and yarn performance of upland cotton with improved fiber bundle strength. *Crop Sci.* 2012 52: 1061–1067 10.2135/cropsci2011.08.0443
- R67. Kelly C.M., E.F. **Hequet**, and J.K. Dever. 2012. Interpretation of AFIS and HVI Fiber Property Measurements in Breeding for Cotton Fiber Quality Improvement. *Journal of Cotton Science*. 16:1–16)
- R68. Joy K., C.W. Smith, E.F. **Hequet**, S.E. Hughs, and S. Hague. 2012. Extra Long Staple Upland Cotton for the Production of Superior Yarns. 2012. *Crop Sci.* 2012 52: 2089–2096 10.2135/cropsci2012.01.0020
- R69. Faulkner B.W., E.F. **Hequet**, J. Wanjura, and R. Boman. 2012. Relationships of cotton fiber properties to ring-spun yarn quality on selected High Plains cottons. *Textile Research Journal* vol. 82 no. 4 **400-414**, DOI: 10.1177/0040517511426613
- R70. Kelly C.M., E.F. **Hequet**, and J.K. Dever. 2012. Breeding for improved yarn quality: Modifying fiber length distribution, *Industrial Crops and Products*, Volume 42, March 2013, Pages 386-396, ISSN 0926-6690, 10.1016/j.indcrop.2012.06.018. (<http://www.sciencedirect.com/science/article/pii/S0926669012003408>)
- R71. Brown I.N., Smith C.W., Auld D., Hague S., **Hequet** E.F., Jones D. 2012. Registration of TAM 94L-25-M24, TAM 94L-25-M25, and TAM 94L-25-M30 Mutant Upland Cotton Germplasm with Improved Fiber Length and Strength. *Journal of Plant Registration*. 2012 6: 195–199. 10.3198/jpr2011.05.0245crg
- R72. Brown N., C.W. Smith, D. Auld, and E.F. **Hequet**. 2012. Improvement of upland cotton fiber quality through mutation of TAM 94L-25. *Crop Science*. doi: 10.2135/cropsci2012.06.0366. Vol. 53 No. 2, p. 452-459
- R73. Joy K., C.W. Smith, E.F. **Hequet**, S.E. Hughs, and S. Hague. 2012. Saw versus Roller Ginning Extra Long Staple Upland Cotton. *Crop Science*. 10.2135/cropsci2012.01.0020 Vol. 52 No. 5, p. 2089-2096



- R74. Paudel D.R., E.F. **Hequet**, N. Abidi. 2013. Evaluation of cotton fiber maturity measurements. *Industrial Crops and Products* 45 (2013) 435-441
- R75. Shahriar M., I. Scott-Fleming, H. Sari-Sarraf, and E.F. **Hequet**. 2013. A Machine Vision System to Estimate Cotton Fiber Maturity from Longitudinal View Using a Transfer Learning Approach. *Machine Vision and Applications*. 24:1161-1683.
- R76. Ng E.-H., K. Jernigan, W. Smith, E. **Hequet**, J. Dever, S. Hague and A.M.H. Ibrahim. 2013. Stability Analysis of Upland Cotton in Texas. *Crop Science*. Vol. 53 No. 4, p. 1347-1355. doi: 10.2135/cropsci2012.10.0590
- R77. Kelly, C.M., E.F. **Hequet**, J. K. Dever. 2013. Breeding for improved yarn quality: modifying fiber length distribution. *Industrial Crops and Products* (42) 386-396.
- R78. Kelly B. and E.F. **Hequet**. 2013. Breeding for Improved Yarn Quality: Importance of Non-HVI Fiber Properties. *The ICAC Recorder*, Vol 31 (2). Published in English, French, and Spanish. **Invited**.
- R79. Beyer, B., C.W. Smith, R. Percy, S. Hague, and E.F. **Hequet**. 2014. Test cross evaluation of upland cotton accessions for selected fiber properties. *Crop Sci*. 54:60-67.
- R80. Ng E.-H., C.W. Smith, E.F. **Hequet**, S. Hague, and J. Dever. 2014. Diallel Analysis of Fiber Quality Traits with an Emphasis on Elongation in Upland Cotton. *Crop Science*, 54: 2: 514-519 doi:10.2135/cropsci2013.06.0414
- R81. Ng E.-H., C. W. Smith, E. **Hequet**, S. Hague and J. Dever. 2014. Generation Means Analysis for Fiber Elongation in Upland Cotton. *Crop Science*, 54: 4: 1347-1353 doi:10.2135/cropsci2013.07.0490
- R82. Jernigan K., C.W. Smith, E.F. **Hequet**, B. Beyer and R. Percy. 2014. Combining Ability and Genetic Variability for Fiber Color among Upland Cotton Accessions. *Crop Science*, 54: 1041-1047.
- R83. Jernigan K., C.W. Smith, E.F. **Hequet**, B. Beyer and R. Percy. 2014. Combining Ability and Variability for Fiber Maturity among Diverse World Cotton Genotypes. *Crop Science*, 54: 906-913.
- R84. Beyer B.M., C. W. Smith, R. Percy, S. Hague and E.F. **Hequet**. 2014. Test Cross Evaluation of Upland Cotton Accessions for Selected Fiber Properties. *Crop Science*, 54: 1: 60-67 doi:10.2135/cropsci2013.06.0374
- R85. Smith C.W., E.F. **Hequet**, S. Hague, and D. Jones. 2014. Registration of TAM 06WE-621 Upland Cotton with Improved Fiber Strength and Yarn Performance. *Journal of Plant Registration*, Vol. 8 (3) 308-312



- R86. Kothari N., J. Dever, S. Hague, E.F. **Hequet**. 2014. Evaluating Intra-Plant Cotton Fiber Variability. *Crop Science*. doi: 10.2135/cropsci2014.01.0077; Posted online 19 June 2014
- R87. Sun Y., S. Veerabomma, M. Fokar, N. Abidi, E. **Hequet**, P. Payton, and R.D. Allen. 2014. Brassinosteroid signaling affects secondary cell wall deposition in cotton fibers. *Industrial Crops and Products*, Vol. 65 334-342
- R88. Brown, N., Smith, C. W., Hague, S., Auld, D., **Hequet**, E., Joy, K., & Jones, D. 2015. Within-Boll Yield Characteristics and Their Correlation with Fiber Quality Parameters following Mutagenesis of Upland Cotton, TAM 94L-25. *Crop Science*, Vol. 55(4) 1513-1523.
- R89. Turner C., H. Sari-Sarraf, E.F. **Hequet**, S. Vitha. 2015. Variation in maturity observed along individual cotton fibers using confocal microscopy and image analysis. *Textile Research Journal* Vol. 85(8) 867-883
- R90. Kelly, C. M., **Hequet**, E. F., and Dever, J. K. 2015. Registration of CA 4003 and CA 4004 Cotton Germplasm Lines with Improved Fiber Quality Profiles and Yarn Properties. *Journal of Plant Registrations*. 10.3198/jpr2015.02.0007crg
- R91. Kothari, N., Dever, J., Hague, S., and **Hequet**, E. 2015. Evaluating Intraplant Cotton Fiber Variability. *Crop Science*, 55(2), 564-570.
- R91. Dema M., Turner C., H. Sari-Sarraf, E.F. **Hequet**. 2016. Machine Vision System for Characterizing Horizontal Wicking and Drying Using an Infrared Camera. *IEEE Transactions on Industrial Informatics*, 12(2) 493-502.
- R92. Ayele A., E.F. **Hequet**, and B. Kelly. 2017. The impact of fiber maturity on estimating the number of cotton (*Gossypium hirsutum* L.) fibers per seed surface area. *Industrial Crops and Products*, Vol.102, 66–22.
- R93. Turner C., H. Sari-Sarraf, E.F. **Hequet**. 2017. Training a New Instrument to Measure Cotton Fiber Maturity Using Transfer Learning. *IEEE Transactions on Instrumentation and Measurement*, 66(7), 1668-1678. 10.1109/TIM.2017.2666203.
- R94. Bouyanfif A., S. Liyanage, J. Hewitt, S.A. Vanapalli, N. Moustaid-Moussa, E. **Hequet**, N. Abidi. 2017. FTIR imaging detects diet and genotype-dependent chemical composition changes in wild type and mutant *C. elegans* strains. *Analyst*. DOI: 10.1039/c7an01432e
- R95. Smith C.W., S. Hague, E.F. **Hequet**, and D.C. Jones. 2018. Registration of Tamcot G11 Upland Cotton Cultivar. *Journal of Plant Registration*. 12(1) 7-12
- R96. Ayele A., B. Kelly, and E.F. **Hequet**. 2018. Evaluating the within-plant variability of cotton fiber length and maturity. *Agronomy Journal*. 110(1) 47-55

- R97. Smith C.W., S. Hague, E.F. **Hequet**, and D.C. Jones. 2018. Elite quality germplasm lines of upland cotton: TAM 11K-13 ELSU, TAM 11T-08 ELSU-ESU, and TAM 11L-24 LSU. *Journal of Plant Registration*, Vol. 12(1), p. 112-117. doi:10.3198/jpr2017.06.0040crg
- R99. Bouyanfif A., S. Liyanage, E. **Hequet**, N. Moustaid-Moussa, and N. Abidi. 2018. Review of FTIR microspectroscopy applications to investigate biochemical changes in *C. elegans*, *Vibrational Spectroscopy*, Volume 96, May 2018, Pages 74-82, ISSN 0924-2031, <https://doi.org/10.1016/j.vibspec.2018.03.001>.
- R99. Kelly B. and E.F. **Hequet**. 2018. Variation in the advanced fiber information system cotton fiber length-by-number distribution captured by high volume instrument fiber length parameters. *Textile Research Journal* 88(7) 754-765
- R100. McCormick K.M., J.P. Saraiva Morais, E.F. **Hequet**, and B. Kelly. 2019. Development of the correction procedure for High Volume Instrument elongation measurement. *Textile Research Journal*. <https://doi.org/10.1177/0040517519829002>.

### **Books edited**

- B1. E. **Hequet** (Senior Editor), T.J. Henneberry, and R.L. Nichols. 2007. *Sticky Cotton: Causes, Effects, and Prevention*. USDA-ARS. Technical Bulletin 1915. 210 pages

### **Book**

- B2. E. **Hequet** and N. Abidi. *Sticky Cotton Measurements and Fiber Processing*, Texas Tech University Press. December 2006, ISBN 10: 0-89672-590-1.

### **Book chapters**

- BC1. **Hequet**, E. 1998. Determinacion de la calidad del algod6n. *In: Tecnologia de la fibra de algod6n*. Direccion General de Investigacion y Formacion Agraria Servicio de Publicaciones y Divulga-tion. Cursos Superiores 3/98. I.S.B.N. 84-89802-39-4. p. 279-330
- BC2. **Hequet**, E. 1998. Contaminacion por pegajosidad. *In: Tecnologia de la fibra de algod6n*. Direccion General de Investigacion y Formacion Agraria Servicio de Publicaciones y Divulga-tion. Cursos Superiores 3/98. I.S.B.N. 84-89802-39-4. p. 341-358
- BC3. Frisvold G.B. , R.E. Tronstad, R.L. Nichols, M.D. Watson, and E.F. **Hequet**. 2007. Scope and economic impact of sticky cotton in “Sticky cotton – causes, impacts and prevention”. United States Department of Agriculture, Agricultural Research Service (USDA-ARS), Washington, D.C.
- BC4. Naranjo S.E., E. **Hequet**. 2007. Sticky cotton sampling in “Sticky cotton – causes, impacts and prevention”. United States Department of Agriculture, Agricultural Research Service (USDA-ARS), Washington, D.C.

- BC5. **Hequet** E., N. Abidi, G Gamble, M. Watson. 2007. Measurement of stickiness in “Sticky cotton – causes, impacts and prevention”. United States Department of Agriculture, Agricultural Research Service (USDA-ARS), Washington, D.C.
- BC6. **Hequet** E., N. Abidi, M. Watson, D. McAlister. 2007. Fiber processing in “Sticky cotton – causes, impacts and prevention”. United States Department of Agriculture, Agricultural Research Service (USDA-ARS), Washington, D.C.
- BC7. Abidi N., E. **Hequet**, L. Cabrales. 2011. Chapter 5: Applications of Fourier Transform Infrared Spectroscopy to Study Cotton Fibers. In: Fourier Transforms – New Analytical Approaches and FTIR Strategies Practical skills, INTECH Open Access Publisher, ISBN 978-953-308-207-3. pp. 89-114 (invited).
- BC8. Abidi N., Aminayi P., L. Cabrales, and E. **Hequet**. 2012. Super-hydrophobic cotton fabric prepared using nanoparticles and molecular vapor deposition methods. In: Functional Materials from Renewable Sources. Liebner F., et al. ACS Symposium Series; American Chemical Society Book, Washington DC. doi: 10.1021/bk-2012-1107.ch008 (invited), pp 149-165.
- BC9. Kelly B., Abidi N., Ethridge D., and **Hequet** E.F. (2015). Fiber to Fabric. *Cotton*. American Society of Agronomy publications. ASA, CSSA, and SSSA. Agronomy monograph 57. Cotton.

### Other articles

- O1. **Hequet** E., R. Frydrych, C. Marquié. 1992. A comparison of the different methods used to detect stickiness: card, thermodetection, chemical tests, near infra-red and the impact of sticky potential on the spinning, Montpellier: CIRAD-IRCT, 02 – 47 pages.
- O2. Gourlot J.P., E. **Hequet**. 1994. Recherche cotonnière: comment utiliser les chaînes HVI (High Volume Instrument) en amélioration variétale? *Agriculture et Développement*, 2, 39-43.
- O3. Marquié C., E. **Hequet**, 1995. Le coton glandless : une sécurité alimentaire en période de soudure, *Bulletin du Réseau TPA*, 11, 20.
- O4. Marquié C., E. **Hequet**, A.M. Tessier, V. Vialettes. 1996. Fabrication d'emballages et de films biodégradables à partir de farines de coton, *OCL*, 3(5) 352-356.
- O5. Frydrych R., E. **Hequet**. 1997. Fascicule de formation. Les cotons collants, Montpellier (FRA): CIRAD-CA, 2, 98 pages.
- O6. Ethridge M.D., E. **Hequet**. 1998. Status of the measurement of stickiness in cotton fibers, *Textile Topics*, Summer, 6 pages.

- O7. **Hequet** E., M.D. Ethridge, W.D. Cole. 1998. Evaluation of improvements in yarn quality with new ring spinning frame, Textile Topics, Fall, 6 pages.
- O8. Ethridge M.D., E. **Hequet**. 1999. An evaluation of the AFIS short fiber content measurement, Textile Topics, Spring, 7 pages.
- O9. **Hequet** E., M. Krifa, J-P. Gourlot. 1999. Trashcam: A new instrument for cotton breeders, Textile Topics, Summer, 8 pages.
- O10. **Hequet** E.F., Ethridge M.D., 2000. Monitoring and control of the AFIS instrument, Textile Topics, Fall, 7 pages.
- O11. **Hequet** E.F., B. Wyatt, M. D. Ethridge. 2000. Cotton fiber measurements using cross-section image analysis: Relationship with fiber length distribution, Textile Topics, Spring, 5 pages.
- O12. **Hequet** E.F., M.D. Ethridge. 2000. Impacts on yarn quality of AFIS measurements of cotton fiber length distributions, Textile Topics, Winter, 10 pages.
- O13. Haigler, C.H., Cai, W.X., Gannaway, J.G., Grimson, M.J., **Hequet**, E.F., Holaday, A.S., Huang, J.-Y., Jaradat, T.T., Jividen, G.J., Krieg, D.R., Martin, L.K., Nagarur, S., Salnikov, V.V., Strauss, R.E., Tummala, J., Wan, C.H., Wu, C., Wyatt, B.G., and Zhang, H. 2000. Optimizing secondary wall synthesis in cotton fibers. In: C.R. Benedict, ed., Genetic Control of Cotton Fiber and Seed Quality, Cotton Incorporated: Cary, NC, pp. 147-165.
- O14. **Hequet** E.F., Wyatt B. 2001. Image analysis on cotton fiber cross sections: relationships with AFIS measurements and yarn quality, Textile Topics, Winter, 6 pages.
- O15. **Hequet** E., N. Abidi. 2002. Processing Sticky Cotton: Implication of Trehalulose in Residue Build up, Textile Topics, Summer, 8 pages.
- O16. **Hequet** E., N. Abidi. 2002. High Speed Stickiness Detector Measurement: Effect of Temperature Settings and Relative Humidity, Textile Topics, Fall, 8 pages.
- O17. Krifa M., E. **Hequet**, D. Ethridge. 2002. Compact Spinning: New potential for short staple cottons, Cotton Gin and Oil Mill Press, 103(12) 6 pages.
- O18. Abidi N., E. **Hequet**. 2003. Scanning electron microscopy analysis of sticky cotton yarn defects, Microscopy and Analysis, Issue 60, 7-8.
- O19. Kelly B. and E.F. **Hequet**. 2013. Breeding for Improved Yarn Quality: Importance of Non-HVI Fiber Properties. The ICAC Recorder, Vol 31 (2). Published in English, French, and Spanish (Invited).