

## TERRY WAYNE GRIFFIN

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### EDUCATION

**Ph.D. Agricultural Economics**, 2006 *Purdue University* - West Lafayette, IN  
**M.S. Agricultural Economics**, 1999 *University of Arkansas* - Fayetteville, AR  
**B.S. Agronomy**, 1997 *University of Arkansas* - Fayetteville, AR

### EXPERIENCE

Kansas State University, Department of Agricultural Economics, Manhattan, KS  
*Associate Professor* (June 2019 - present)  
*Assistant Professor* (February 2015 - June 2019)

Griffin Consulting LLC  
*Owner* (2005 - present)

Cresco Ag LLC - Memphis, TN  
*Vice President - Applied Economics* (January 2012 - September 2013)

University of Arkansas Division of Agriculture Cooperative Extension Service, Little Rock, AR  
Department of Agricultural Economics and Agribusiness, Fayetteville, AR  
*Associate Professor - Economics* (July 2011 - January 2012)  
*Assistant Professor - Economics* (December 2006 - June 2011)

Western Illinois University, Agriculture Department – Macomb, IL  
*Adjunct Instructor* (Fall 2000 - Spring 2003)

University of Illinois Extension – Macomb, IL  
*Extension Educator - Farm Business Management and Marketing* (December 1999 – July 2003)

Griffin Farms, Paragould, Arkansas  
*Part owner and operator* dba Jack's Creek Farms, Inc. (1992 – 2009)

### CONSULTING ACTIVITIES

Expert witness economics: served on plaintiff and defendant legal teams on various court cases  
Developer: automated economic decision-making models functioning in existing propriety environments  
Developer: autonomous algorithm for spatial data analysis (patent awarded in 2009)  
Economic analyses, outside expert opinion, and liaison with industry partners

## COMMUNITY & VOLUNTEER SERVICE

Alpha Gamma Rho Fraternity - Alpha Iota Chapter (Arkansas) Alumni Board Member 2008-2009  
 Bryant Elementary School Parent Teacher Organization; President 2014, Secretary 2013-2014  
 Bryant Elementary School Watch D.O.G.S. steering committee 2011-2012  
 Central Arkansas Astronomical Society – 2012 to 2015, Board: 2015  
 Upward Sports Coach and Referee; Flag Football 2010-2014, Basketball 2011-2013, Soccer 2011-2014  
 Manhattan Parks and Recreation 7<sup>th</sup>/8<sup>th</sup> grade basketball coach 2016, 2017  
 St. George Parks and Recreation baseball coach 2018; softball coach 2019  
 AWANA Grand Prix committee, Grace Baptist Church, Manhattan, Kansas 2016-2018

## GRANTS and CONTRACTS

### Contracts as Sole Principal Investigator

1. \$20,000 Cotton Inc. 2016. Analysis System and Tools for Community Data
2. \$20,000 Cotton Inc. 2010-2011. Development of on-the-go nitrogen algorithms based on active sensors across the cotton-belt and spatial statistical analysis of field-scale research
3. \$20,000 Cotton Inc. 2007-2009. “Spatial statistical analysis of field-scale experiments implemented and collected with site-specific precision agriculture technology.”

### Grants as Sole Principal Investigator

1. \$37,303 Risk Management Education Regarding the 2008 Farm Bill, Crop Insurance Products, and Farmland Leasing Strategies for Arkansas Producers – RME-JBK02927 for 2009-2010
2. \$10,000 USDA-SARE Graduate Student Grant 2004 to 2007 “Development of Appropriate Participatory On-Farm Trial Designs for Sustainable Precision Agriculture Systems.”
3. \$2,500 Andrews Environmental Grant, Graduate School *Purdue University* (2004)

### Grants or Contracts as Co-Principal Investigator

1. \$30,000 Griffin and Ibendahl, Swarmbots for Cotton Production, Cotton Inc. 2019
2. \$30,000 Griffin and Ibendahl, Swarmbots for Cotton Production, Cotton Inc. 2018
3. \$49,776 (Griffin’s portion \$18,036) Economic and Legal Aspects of Farm Data. 2017-2018. Southern Extension Risk Management Education. Shannon Ferrell (Oklahoma State University).
4. \$239,229 Testing and Evaluation Services Agreement. Mahindra & Mahindra. 2016-2018. Ajay Sharda, D. Flippo, E. Brokesh
5. \$50,000 Sustainable Kansas Wheat – Pilot project: A Field-to-Market Field Print calculator project. 2016. Romulo Lollato, D. Presley, P. Tomlinson, D. Ruiz Diaz, A. Patrignani, E. Brokesh.
6. \$29,928 The Quest of 100-bushel soybean: On-farm approach, Kansas Soybean Commission with Ignacio Ciampitti
7. \$1.15M 2010-2013. NIFA-RAMP “Innovative Nematode Management Strategies to Reduce Pesticide Usage While Enhancing Farm Profit and Environmental Quality,” 2010. With Khalilian, Mueller, Henderson, Kirkpatrick, Monfort, and Overstreet.
8. \$24,094. 2009-2012. Arkansas State Support for Cotton Project Cotton Inc. Influence of Nematodes and Edaphic Factors on Cotton. With Monfort and Robbins.
9. \$19,500 Cotton Inc. 2009-2010. COTMAN™ Software Development and Delivery: Focus Group. With Wailes, Danforth, and Ballard.
10. 2007-2011. Arkansas Cotton Project 08-337AR Achieving Profitable Cotton Production: Defining Optimal Seeding Rates over Varying Soil Textures. With Barber and Windham.
11. \$15,000. Cotton Inc. 2010. Determination of soil compaction effects on cotton yield in mid-south soil conditions. With VanDevender and Kulkarni
12. \$10,000. Mobile Computer Laboratory. Program and Curriculum Development, University of Illinois Extension. With Brooks, Hambleton, and Endress.

## AWARDS and HONORS

Best Oral Paper Presentation Award: 2017 European Conference on Precision Agriculture, Edinburgh, Scotland, UK for: Miller, N.J., **Griffin, T.W.**, Bergtold, J., Ciampitti, I.A., and Sharda, A. 2017. Farmers' Adoption Path of Precision Agriculture Technology. In: Proceedings of the 11<sup>th</sup> European Conference on Precision Agriculture, *Advances in Animal Bioscience* 8(2):708-712

Gold Quill Award: Outstanding Article of the 2016 Journal of the American Society of Farm Managers and Rural Appraisers for **Griffin, T.W.**, T.B. Mark, S. Ferrell, T. Janzen, G. Ibendahl, J.D. Bennett, J.L. Maurer, and A. Shanoyan. 2016. Big Data Considerations for Rural Property Professionals. *Journal of American Society of Farm Managers and Rural Appraisers*. 79:167-180

### International Awards and Honors

veski Sustainable Agriculture Fellow 2017-2018

American Society of Agricultural and Biological Engineers

2017 Blue Ribbon Award for Short Publication

“Liquid Application Technologies” with A. Sharda, J. Fulton, and J. Slocombe

2017 Blue Ribbon Award for Short Publication

“Planter Downforce for Uniform Seed Depth” with A. Sharda, J. Fulton, I. Ciampitti, and L. Haag

International Society of Precision Agriculture

2014 Pierre Robert Precision Agriculture Award - Young Scientist

### National Awards and Honors

National Conservation Systems

2012 Precision Ag Researcher of the Year

PrecisionAg Institute and Meister Media

2010 PrecisionAg Award of Excellence Educator/Researcher of the Year

National Association of County Agricultural Agents

2003 National Winner NASA Excellence Award Remote Sensing and Precision Agriculture

2002 National Winner NASA GIS and Remote Sensing Decision Support Seminar

### Regional Awards and Honors

National Association of County Agricultural Agents

2017 North Central Region Winner - Communication Award - Farm Data w/ A. Ellixson & P. Goeringer

2002 North Central Region Winner - Extension Education Programs Poster “Utilizing Precision Farming Technologies to Design and Implement Management Intensive Grazing Systems”

### State Awards and Honors

National Association of County Agricultural Agents - Kansas Chapter

2017 Communication Award - Fact sheet on Farm Data with Ashley Ellixson

Arkansas County Agricultural Agents Association

2010 Young Professionals Award

2009 Communication Award - Fact Sheet on Farmers' Adoption and Use of Yield Monitors

Illinois Extension Agricultural Agents

2003 Farm and Financial Management Team Award

2002 Communication Award - Fact Sheet on Variable Cash Rents

## RESEARCH

## Patents

1. **Griffin, T.W.** 2011. Computer-Automated Spatial Analysis. July 21, 2011 Pub no. WO2011022436

## Books and Book Chapters

1. **Griffin, T.W.**, Shockley, J., and Mark, T.B. 2018. Economics of Precision Farming. In D.K. Shannon, D.E. Clay, and N.R. Kitchens (Eds.) Precision Agriculture Basics. USDA. American Society of Agronomy, Crop Science Society of America, and Soil Science Society of America.
2. Ferrell, S.L. and **Griffin, T.W.** 2018. Managing Farm Risk Using Big Data: A guide to understanding the opportunities and challenges of agricultural data for your farm. Handbook sponsored by USDA NIFA RME <http://agecon.okstate.edu/farmdata/>
3. **Griffin, T.W.** 2010. The Spatial Analysis of Yield Data. In M. Oliver (Ed.) Geostatistical Applications for Precision Agriculture. Springer. 295p.

## Refereed Journal Articles

1. Ward, J.K. **Griffin, T.W.**, Jordan, D., and Roberson, G. forthcoming 2020. Available Time to Plant and Harvest Peanuts. *Journal of the American Society of Farm Managers and Rural Appraisers*, 83(1).
2. **Griffin, T.W.** and Gammon, S. forthcoming 2020. A Brief History of Farm Management: a textual analysis. *Journal of the American Society of Farm Managers and Rural Appraisers*, 83(1).
3. Bergtold, J.S., Yeager, E.A., and **Griffin, T.W.** 2019. Spatial dynamics in the classroom: Does seating choice matter? *PLoS ONE* 14(12): e0226953. <https://doi.org/10.1371/journal.pone.0226953>
4. **Griffin, T.W.**, and Lowenberg-DeBoer, J.M. 2019. Modeling local spatial correlation of terrain attributes in landscape-scales using spatial cross regressive variables. *Precision Agriculture*, <https://doi.org/10.1007/s11119-019-09702-5>
5. Ellixson, A., **Griffin, T.W.**, Ferrell, S.L., and Goeringer, L.P. 2019. Legal and Economic Implications of Farm Data: Ownership and Possible Protections. *Drake Journal of Agricultural Law*, 24(1):49-66
6. Rosburg, B., **Griffin, T.W.**, and Coffey, B. 2019. The Cost of Being Faithful: What do Farmers Give Up to Keep the Sabbath? *Faith & Economics*, 73:25-45 Spring 2019
7. Carls, E.A., Ibendahl, G., **Griffin, T.W.**, and Yeager, E.A. 2019. Factors Affecting Net Farm Income for Row Crop Production in Kansas. *Journal of the American Society of Farm Managers and Rural Appraisers*, 82:47-53
8. Miller, N.J., **Griffin, T.W.**, Ciampitti, I., and Sharda, A. 2019. Farm Adoption of Embodied Knowledge and Information Intensive Precision Agriculture Technology Bundles. *Precision Agriculture*, 20(2):348-361.
9. Lollato, R.P., Ochsner, T.E., Arnall, D.B., **Griffin, T.W.**, and Edwards, J.T. 2019. From Field Experiments to Regional Forecasts: Upscaling Wheat Grain and Forage Yield Response to Acidic Soils. *Agronomy Journal* 111(1): 111:287–302 doi:10.2134/agronj2018.03.0206
10. Miller, N.J., **Griffin, T.W.**, Goeringer, L.P., Ellixson, A. and Shanoyan, A. 2018. Estimating Value, Damages, and Remedies when Farm Data are Misappropriated. *Choices*. 4th Quarter 2018 33(4)
11. Rosburg, B., and **Griffin, T.W.** 2018. Whole-Farm Planning Models for Assessing Inter-Generational Transition. *Journal of the National Association of County Agricultural Agents*, 11(1).
12. Wright, R.E., **Griffin, T.W.**, Guha, G., and Bouldin, J. 2018. Economic Investigation of Crop Selection in the Southern Mississippi River Basin. *Journal of the American Society of Farm Managers and Rural Appraisers*, 81:177-191.
13. Stabel, J., **Griffin, T.W.**, and Ibendahl, G. 2018. Do Profitable Farms Remain Profitable? Markov Switching Models Applied to Transition Probabilities. *Journal of Applied Farm Economics*, 2(1):23-31.
14. Varela, S., Dhodda, P., Hsu, W.H., Prasad, P.V.V., Assefa, Y., Peralta, N.R., **Griffin, T.**, Sharda, A., Ferguson, A., and Ciampitti, I.A. 2018. Early-Season Stand Count Determination in Corn via Integration of Imagery from Unmanned Aerial Systems (UAS) and Supervised Learning Techniques. *Remote Sensing*, 10, 343.
15. Coble, K., Ferrell, S.L., Mishra, A., and **Griffin, T.W.** 2018. Big Data in Agriculture: A Challenge for the Future. *Applied Economics Perspectives and Policy*, 40(1):79–96.

16. **Griffin, T.W.** and Lowenberg-DeBoer, J. 2017. Impact of Automated Guidance for Mechanical Control of Herbicide Resistant Weeds in Corn. *Journal of Applied Farm Economics*, 1(2):62-74
17. Mangus, D., A. Sharda, D. Flippo, R. Strasser, and **T. Griffin**. 2017. Development of high speed camera hardware and software package to evaluate real-time electric seed meter accuracy of a variable rate planter. *Computers and Electronics in Agriculture*, 142:314-325.
18. Varela, S., Assefa, Y., Prasad, V., Peralta, N.R., **Griffin, T.W.**, Sharda, A. Ferguson, A. and Ciampitti, I.A. 2017. Spatio-Temporal Evaluation of Plant Height in Corn via Imagery collected by Unmanned Aerial Systems (UAS). *Journal of Applied Remote Sensing*, 11(3).
19. **Griffin, T.W.**, Miller, N.J., Bergtold, J., Shanoyan, A., Sharda, A., and Ciampitti, I.A. 2017. Farm's Sequence of Adoption of Information-Intensive Precision Agricultural Technology. *Applied Engineering in Agriculture*, 33(4):521-527.
20. Mangus, D., A. Sharda, A. Engelhardt, D. Flippo, R. Strasser, J. D. Luck and **T. Griffin**. 2017. Analyzing the nozzle spray fan pattern on an agricultural sprayer using pulse width modulation technology to generate an on-ground coverage map. *Transactions of the ASABE*, 60(2):315-325.
21. **Griffin, T.W.** and Barnes, E. 2017. Available Time to Plant and Harvest Cotton across the Cotton Belt. *Journal of Cotton Science*, 21(1):8-17.
22. Carls, Emily, and **Griffin, T.W.** 2016. Development of Interactive Website Charts for Utilization using Google Docs. *Journal of Extension*, 54(5) 5TOT5 <https://joe.org/joe/2016october/tt3.ph>
23. **Griffin, T.W.** and S.L. Zapata. 2016. Optimal Cotton Insecticide Application Termination Timing: A Meta-Analysis. *Journal of Economic Entomology*, 109(4):1698-1705. doi: 10.1093/jee/tow119
24. Mark, T.B., **Griffin, T.W.** and Whitacre, B. 2016. The Role of Wireless Broadband Connectivity on 'Big Data' and the Agricultural Industry in the United States and Australia. Special Edition: The Value of Big Data in Agriculture: Inputs, Farming and Processing. *International Food and Agribusiness Management Review*, 19(A):43-56.
25. **Griffin, T.W.**, T.B. Mark, S. Ferrell, T. Janzen, G. Ibendahl, J.D. Bennett, J.L. Maurer, and A. Shanoyan. 2016. Big Data Considerations for Rural Property Professionals. *Journal of American Society of Farm Managers and Rural Appraisers*, 79:167-180
26. Spurlock, T.N., Rothrock, C.S., Monfort, W.S, **Griffin, T.W.** 2016. The distribution and colonization of soybean by *Rhizoctonia solani* AG11 in fields rotated with rice. *Soil Biology & Biochemistry*, 94:29-36
27. Liu, Z., **Griffin, T.W.**, Kirkpatrick, T.K., Monfort, W.S. 2015. Spatial Econometric Approaches to Site-Specific Nematode Management Strategies. *Precision Agriculture*, 16(5):587-600
28. **Griffin, T.W.**, Mark, T.B., and Ibendahl, G. 2015. How Spatially Clustered are State-level Farmland Values? *Journal of American Society of Farm Managers and Rural Appraisers*, 78:103-112
29. Whitacre, B.E., Mark, T.B., and **Griffin, T.W.** 2014. How Connected are Our Farms? *Choices, The Magazine of Food, Farm, and Resource Issues*. 29(3) 9 pp
30. **Griffin, T.W.**, Mark, T.B., Dobbins, C.L., Lowenberg-DeBoer, J. 2014. Estimating Whole Farm Costs of Conducting On-farm Research: A Linear Programming Approach. *International Journal of Agricultural Management*. 4(1):21-27.
31. Norsworthy, J.K., Griffith, G., **Griffin, T.W.**, Bagavathiannan, M. and Gbur, E.E. 2014. In-Field Movement of Glyphosate-Resistant Palmer Amaranth (*Amaranthus palmeri*) and Its Impact on Cotton Lint Yield: Evidence Supporting a Zero-Threshold Strategy. *Weed Science*: 62(2):237-249. doi: <http://dx.doi.org/10.1614/WS-D-13-00145.1>
32. Liu, Z., **Griffin, T.W.**, and Kirkpatrick, T.L. 2014. Statistical and Economic Techniques for Site-specific Nematode Management. *Journal of Nematology*. 46(1):12-17. <http://1.usa.gov/1oYKyhL>
33. Ibendahl, G., and **Griffin, T.W.** 2013. The Connection between Cash Rents and Land Values. *Journal of the American Society of Farm Managers and Rural Appraisers*. 76:239-247 <http://bit.ly/ZTMnHf>
34. Vories, E.D., Stevens, W.E., Tacker, P.L., **Griffin, T.W.**, and Counce, P.A. 2013. SW-09411-2011.R2 Rice Production with Center Pivot Irrigation. *Applied Engineering in Agriculture* 29(1):51-60.
35. Vories, E.D., Greene, J.K., Teague, T.G., Stewart, J.H., Phipps, B.J., Pringle, H.C., Clawson, E.L., Hogan, R.J., O'Leary, P.F., **Griffin, T.W.** 2011. Determining the optimum timing for the final furrow irrigation on mid-south cotton. *Applied Engineering in Agriculture*. 27(5):737-745.

36. **Griffin, Terry**, and George Baird, IV. 2010. Conveying the Role of Professional Farm Managers to Potential Clientele. *Journal of the American Society of Farm Managers and Rural Appraisers*. 73:193-198
37. **Griffin, T.W.**, Dobbins, C.L., Florax, R.J.G.M., Lowenberg-DeBoer, J.M., and Vyn, T.J. 2010. Spatial Analysis of Precision Agriculture Data: Role for Extension. *National Association of County Agricultural Agents Journal*. 3(1)
38. Meyer-Aurich, Andreas, **Griffin, T.W.**, Herbst, Ruprecht, Giebel, Antje, and Muhammad, Nawaz. 2010. Spatial econometric analysis of a field-scale site-specific nitrogen fertilizer experiment on wheat (*Triticum aestivum* L.) yield and quality. *Computers and Electronics in Agriculture*. 74(1):73-79.
39. **Griffin, T.W.** 2009. Acquiring and Applying Days Suitable for Fieldwork for your State. *Journal of the American Society of Farm Managers and Rural Appraisers*. 72(1):35-42. <http://bit.ly/ZyEo1E>
40. **Griffin, T.W.**, Dobbins, C.L., Vyn, T., Florax, R.J.G.M. and Lowenberg-DeBoer, J. 2008. Spatial analysis of yield monitor data: Case studies of on-farm trials and farm management decision-making. *Precision Agriculture*. 9(5):269-283.
41. **Griffin, T.W.** and Lambert, D.M. 2005. Teaching interpretation of yield monitor data analysis: lessons learned from Purdue's 37th top farmer crop workshop. *Journal of Extension*, 43(3) 3IAW5
42. **Griffin, T.W.**, and J. Lowenberg-DeBoer. 2005. Worldwide Adoption and Profitability of Precision Agriculture: Implications for Brazil. *Revista de Politica Agricola*, 14(4):20-37. <http://bit.ly/Zj3D7x>
43. Popp, J. **Griffin, T.W.**, and Pendergrass, E. 2002. How Cooperation May Lead to Consensus Assessing the Realities and Perceptions of Precision Farming in Your State. *Journal of the American Society of Farm Managers and Rural Appraisers* 65(1):26-31.
44. Popp, J. **Griffin, T.W.**, Popp, M.P., and Baker, W.H. 2002. Profitability of Variable Rate Phosphorus in a Two Crop Rotation. *Journal of the Arkansas Academy of Science*. 56:125-133.

#### Working Papers Submitted for Peer Review

1. **Griffin, T.W.**, E. A. Yeager, Eric Ofori. Time-to-adopt duration analyses of agricultural technology: What's influencing farmers' adoption decisions? *Agricultural Finance Review*, in first review
2. **Griffin, T.W.** How Valuable is Farm Data to Farmers? Estimating Damages from Inaccessible Data. Available at SSRN: <https://ssrn.com/abstract=3286320>
3. **Griffin, T.W.**, Fitzgerald, G., Lowenberg-DeBoer, J., Barnes, E. Local and Global Spatial Correlation in Field-Scale Tillage Experiments. *Agronomy Journal*, in first revision (minor comments)
4. **Griffin, T.W.**, Harris, K.D., Ward, J.K., Goeringer, L.P., Richard, J.A. Digital agriculture problems solved by blockchain technology. Prepared themed issue of *Applied Economics Perspectives and Policy*
5. **Griffin, T.W.** and Traywick, L.S. Role of Variable Rate Technology for Fertilizer. *Journal of Applied Farm Economics*, in first review

#### Peer Reviewed Conference Proceedings

1. **Griffin, T.W.**, and Yeager, E.A. 2019. How quickly do farmers adopt technology? A duration analysis. *Precision agriculture '19*. Ed. J.V. Stafford. 12<sup>th</sup> European Conference on Precision Agriculture. pp 843-849 [https://doi.org/10.3920/978-90-8686-888-9\\_104](https://doi.org/10.3920/978-90-8686-888-9_104)
2. **Griffin, T.W.**, Yeager, E.A., and Ibendahl, G. Adoption of Precision Agriculture Technology. *22nd International Farm Management Congress*, Grand Chancellor Hotel, Launceston, Tasmania, Australia
3. Miller, N.J., **Griffin, T.W.**, Bergtold, J., Ciampitti, I.A., and Sharda, A. 2017. Farmers' Adoption Path of Precision Agriculture Technology. In: Proceedings of the 11<sup>th</sup> European Conference on Precision Agriculture, *Advances in Animal Bioscience* 8(2):708-712
4. **Griffin, T.W.**, Gregg Ibendahl, Tyler B. Mark, Ajay Sharda, Ignacio A. Ciampitti, and Kevin Herbel. 2015. Harvest Equipment Capacity Selection Considering Weather Uncertainty in Kansas. *20<sup>th</sup> International Farm Management Congress Vol 1*. Quebec City, Quebec, Canada. July 13-17, 2015. ISBN 978-92-990062-3-8
5. Ibendahl, G. and **Griffin, T.W.** 2015. An Examination of Machinery Costs and Machinery Investment in Kansas. *20<sup>th</sup> International Farm Management Congress Vol 1*. Quebec City, Quebec, Canada. July 13-17, 2015. ISBN 978-92-990062-3-8

6. **Griffin, T.W.**, C.L Dobbins and J. Lowenberg-DeBoer. 2007. Case Study of On-farm Trials, Spatial Analysis and Farm Management Decision Making. In J.V. Stafford (ed.) *Precision Agriculture '07*. 6<sup>th</sup> European Conference on Precision Agriculture. Skiathos, Greece. pp 745-752.
7. **Griffin, T.W.**, Lowenberg-DeBoer, J., Lambert, D.M. 2005. Economics of Lightbar and Auto-Guidance GPS Navigation Technologies. In J.V. Stafford (ed.) *Precision agriculture '05*. 5th European Conference on Precision Agriculture, Uppsala, Sweden. pp 581-587

#### **Experiment Station Reports, Summaries, and Staff Papers**

1. **Griffin, T.W.**, McClelland, B., and Barber, L.T. 2011. Cotton Yield Potential by Planting Date Based on Observational Data from the Arkansas Cotton Research Verification Program. pp 29-31. In D.M. Oosterhuis (ed.) Summaries of Arkansas Cotton Research 2010. University of Arkansas Division of Agriculture. Arkansas Agricultural Experiment Station Research Series 589.
2. Griffith, G.M., Norsworthy, J.K., and **Griffin, T.W.** 2010. Spatial movement of glyphosate-resistant Palmer amaranth in Roundup Ready® Flex cotton. pp. 89-93. In: D.M. Oosterhuis (ed.) Summaries of Arkansas Cotton Research 2009. Arkansas Agricultural Experiment Station Research Series 582.
3. Hignight, J., E. Wailes, B. Watkins, and **T. Griffin**. 2008. Comparative Analysis of the 2008 Farm Bill Price-based Counter-cyclical Program and Average Crop Revenue Election (ACRE) Program for Arkansas Representative Panel Farms. Department of Agricultural Economics and Agribusiness Staff Paper SP 02 2008, June. University of Arkansas, Division of Agriculture.
4. Hignight, J., and **Griffin, T.W.** Arkansas Farmers' Use of Crop Insurance from 2003-2007. SP012008.
5. **Griffin, T.W.**, J. Lowenberg-DeBoer, D.M. Lambert, J. Peone, T. Payne, and S.G. Daberkow. 2004. Adoption, Profitability, and Making Better Use of Precision Farming Data. Staff Paper #04-06 Department of Agricultural Economics, Purdue University.
6. Popp, J., **Griffin, T.W.** 2000. Adoption, Profitability and Potential Trends of Precision Farming in Arkansas. Department of Agricultural Economics and Agribusiness SP042000 February 2000

#### **Organized Symposia**

1. Coble, K. Mishra, A., Bohman, M., Johansson, R., Young, B., and **Griffin, T.W.** Implications of “Big Ag Data” for the Agricultural and Applied Economics Profession. Agricultural and Applied Economics Association, Chicago, Illinois July 31-August 2, 2017.
2. **Griffin, T.W.** 2012. Statistical and Economic Approaches for Understanding Yield. Understanding Yield Variability across Spatial and Temporal Scales, ASA, CSSA, and SSSA International Annual Meetings in Cincinnati, OH, October 24, 2012
3. **Griffin, T.W.**, Kirkpatrick, T.K., Monfort, W.S. 2011. Novel Statistical Evaluations and Economics. Society of Nematology, Corvallis, OR, July 2011
4. **Griffin, T.W.**, Lambert, D.M., Malzer, G., and Lowenberg-DeBoer, J. 2005. Risk Management for Site-Specific Nitrogen Application. Southern Agricultural Economics Association Annual Meeting, February 2005, Little Rock, AR.
5. **Griffin, T.W.**, Lambert, D.M. and Lowenberg-DeBoer, J. 2005. Comparison of Spatial Statistical Methods for On-Farm Research Using Precision Technologies. “Testing the Precision Agriculture Hypothesis”, American Agriculture Economics Association Annual Meeting, July 2005, Providence, RI.

#### **Conference Proceedings – Oral Papers**

1. **Griffin, T.W.**, Yeager, E.A., and Ofori, E. 2019. Time-to-adopt duration analyses of agricultural technology: What’s influencing farmers’ adoption decisions? In Karl Behrendt and Dimitrios Pappas, editors, proceedings of the INFER Workshop on Agri-Tech Economics 18th - 19th October 2019, Harper Adams University, Newport, United Kingdom. Harper Adams University, Global Institute for Agri-Tech Economics, Land, Farm and Agribusiness Management Department
2. **Griffin, T.W.** and Mark, T.B. 2019. Have we become too dependent on GNSS? Evaluating the implications of GNSS outage. In Karl Behrendt and Dimitrios Pappas, editors, proceedings of the INFER Workshop on Agri-Tech Economics 18th - 19th October 2019, Harper Adams University, Newport, United Kingdom. Harper Adams University, Global Institute for Agri-Tech Economics, Land, Farm and Agribusiness Management Department.

3. Mark, T.B. and **Griffin, T.W.** Big Data, Blockchain, and Autonomous Machinery can they be fully implemented before address broadband access? In Karl Behrendt and Dimitrios Pappas, editors, proceedings of the INFER Workshop on Agri-Tech Economics 18th - 19th October 2019, Harper Adams University, Newport, United Kingdom. Harper Adams University, Global Institute for Agri-Tech Economics, Land, Farm and Agribusiness Management Department.
4. **Griffin, T.W.**, Shanoyan, A., Yeager, B.A., and Ibendahl, G. 2019. Agricultural Technology Adoption Path of Kansas Farms AIM American Society of Agricultural and Biological Engineers Boston, MA July 7-10, 2019
5. Pena, E., Ward, J.K., and **Griffin, T.W.** 2019. Preliminary Evaluation of Cotton Quality Mapping. AIM American Society of Agricultural and Biological Engineers Boston, MA July 7-10, 2019
6. **Griffin, T.W.**, Ibendahl, G., Barnes, E., and Devine, J. 2019. Optimal utilization of autonomous robotics for cotton harvest: how slow can we go? AIM American Society of Agricultural and Biological Engineers Boston, MA July 7-10, 2019
7. **Griffin, T.W.**, Ibendahl, G., Yeager, E.A., and Shanoyan, A. 2019. Digital Agriculture as a Risk Management Strategy. National Farm Business Management Conference aka Triennial aka NAFBAS. Sheboygan, WI. June 9-13, 2019.
8. Barnes, E.M., Hake, K., **Griffin, T.W.**, Rains, G.C., Maja, J.M.J., Thomasson, J.A., Griffin, J.A., Pelletier, M.G., Kimura, E., Morgan, G., Devine, J., Ibendahl, G. and Ayre, B.G. 2019. Initial Possibilities for Robotic Cotton Harvest. Beltwide Cotton Conference, New Orleans, LA
9. **Griffin, T.W.**, Ibendahl, G., Regmi, M., Barnes, E., Devine, J., Cullop, J., Griffin, T.G. 2019. Optimal Robotic Utilization for Cotton Production. Beltwide Cotton Conference, New Orleans, LA. January 8, 2019.
10. Cullop, J., **T.W. Griffin**, A. Sharda, and E. Brokesh. 2018. Utility Tractor Usage within Small-Scale Farming Operations. Paper No. 1801650. In proceeding of the Annual International Meeting for the American Society of Agricultural and Biological Engineers. Detroit, Michigan, U.S., July 29 to August 1, 2018.
11. Carls, E.A., **Griffin, T.W.**, and Ibendahl, G. 2018. Evaluation of the Transition from Conventional to Organic. Western Agricultural Economics Association, Anchorage, AL. July 2018
12. **Griffin, T.W.** & Yeager, E.A. 2018. Adoption of Precision Agriculture Technology: A Duration Analysis. In Proceedings of the 14th International Conference on Precision Agriculture (unpaginated, online). Monticello, IL: International Society of Precision Agriculture.
13. Dhoubhadel, S.L., & **Griffin, T.W.** 2018. The Impact of Precision Agriculture Technologies on Farm Profitability in Kansas. In Proceedings of the 14th International Conference on Precision Agriculture (unpaginated, online). Monticello, IL: International Society of Precision Agriculture.
14. Badua, S.A., Sharda, A., Strasser, R., Ciampitti, I., & **Griffin, T.W.** 2018. Influence of Planter Downforce Setting and Ground Speed on Seeding Depth and Plant Spacing Uniformity of Corn. In Proceedings of the 14th International Conference on Precision Agriculture (unpaginated, online). Monticello, IL: International Society of Precision Agriculture.
15. Knapp, M., Redmond, C., & **Griffin, T.W.** 2018. Managing the Kansas Mesonet for Site Specific Weather Information. In Proceedings of the 14th International Conference on Precision Agriculture (unpaginated, online). Monticello, IL: International Society of Precision Agriculture.
16. Ajewole, K., Ibendahl, G., and **Griffin, T.W.** 2018. Long Run Impact of Rural Household Income on Family Living Expenses. Annual meeting of the Southern Agricultural Economics Association. Jacksonville, FL February 3-6, 2018.
17. Carls, E., **Griffin, T.W.**, and Ibendahl, G. 2018. Farm Management Implications of Transitioning from Conventional to Organic Production: An Application of Whole-Farm Linear Programming Model to Examine Transition Period. Annual meeting of the Southern Agricultural Economics Association. Jacksonville, FL February 3-6, 2018.
18. Ibendahl, G. and **Griffin, T.W.** 2018. A Comparison of Yield Variability at the Farm, County, and Crop Reporting District Level. Annual meeting of the Southern Agricultural Economics Association. Jacksonville, FL February 3-6, 2018.
19. Lindbloom, M., Shanoyan, A., and **Griffin, T.W.** 2017. Farm Diversification as an Adaptive Capability: Examining the Resilience of Kansas Farms. Selected Paper prepared for presentation at the



- Agricultural & Applied Economics Association's 2017 AAEA Annual Meeting, Chicago, Illinois, July 30 - August 1, 2017
20. Miller, N.J., Rashid, A., Bergtold, J., **Griffin, T.W.**, and Shanoyan, A. 2017. A Spatio-Temporal Analysis of the Adoption Process of Complementary Precision Agricultural Practices in Kansas. Selected Paper prepared for presentation at the 2017 Agricultural & Applied Economics Association Annual Meeting, Chicago, Illinois, July 30-August 1
  21. Sharda, A., **Griffin, T.W.** Influence of Planter Downforce Setting and Ground Speed on Seeding Depth, Plant Spacing and Emergence Uniformity of Corn. Annual Meeting of the American Society of Agricultural and Biological Engineers. Spokane, Washington. July 2017
  22. Sharda, A., Miller, N.J., **Griffin, T.W.**, Bergtold, J., and Ciampitti, I.A. Adoption Patterns of Precision Agriculture Technology Bundles on Kansas Farms. Annual Meeting of the American Society of Agricultural and Biological Engineers. Spokane, Washington. July 2017
  23. Zapata, S.D., and **Griffin, T.W.** Meta-Analysis of Multiple Treatments Experiments. 2017 Southern Agricultural Economics Association. Mobile, Alabama.
  24. Miller, N.J., Bergtold, J., Ciampitti, I., Sharda, A., and **Griffin, T.W.** Adoption of Precision Agriculture Technology Bundles on Kansas Farms. 2017 Southern Agricultural Economics Association. Mobile, Alabama.
  25. **Griffin, T.W.** 2016. Mine the Data Not the Soil: Big Data Considerations for Soil Fertility. North Central Extension-Industry Soil Fertility Conference November 2-3, 2016, Des Moines, IA
  26. **Griffin, T.W.** and Ferrell, S.L. Proving Damages from Loss of Yield Monitor Data: Forensic Economics, Farm Data Valuation, and Remedies. American Agricultural Law Association Annual Meeting. Oklahoma City, OK. October 2016.
  27. Zapata, S.D., and **Griffin, T.W.** Meta-Analysis of Multiple Treatments Experiments. Meta-analysis for Economic Research Network 2016 Colloquium Conway, Arkansas September 16-17, 2016.
  28. Ajay Sharda, Ryan Strasser, Jena Kulp, Daniel Flippo, Devin Mangus, **Griffin, T.W.** Real-time gauge wheel load variability on planter with downforce control during field operation. International Conference on Precision Agriculture 2016 Abstract #2145. In proceedings of the 13th International Conference on Precision Agriculture, July 31-August 3, 2016. St. Louis, Missouri.
  29. Bennett, J., Sharda, A., Wilson, C., and **Griffin, T.W.** Value of Map Sharing between Multiple Vehicles using Automated Section Control in the Same Field. International Conference on Precision Agriculture 2016. In proceedings of the 13th International Conference on Precision Agriculture, July 31-August 3, 2016. St. Louis, Missouri.
  30. Ellixson, Ashley, **Griffin, T.W.**, Goeringer, L.P. 2016. Ownership and Protections of Farm Data. International Conference on Precision Agriculture 2016 Abstract #2141. In proceedings of the 13th International Conference on Precision Agriculture, July 31-August 3, 2016. St. Louis, Missouri.
  31. Varela, S., G. Balboa, V. Prasad, A. Ferguson, I. Ciampitti, **T. Griffin**. 2016. Spatial-temporal Evaluation of Plant Phenotypic Traits Via Imagery Collected by Unmanned Aerial Systems (UAS). In proceedings of the 13th International Conference on Precision Agriculture, July 31-August 3, 2016. St. Louis, Missouri.
  32. Maurer, J.L., Sharda, A., and **Griffin, T.W.** Site-specific Scale Efficiency Determined by Data Envelopment Analysis of Precision Agriculture Field Data. Paper for International Conference on Precision Agriculture 2016 Abstract #1776. In proceedings of the 13th International Conference on Precision Agriculture, July 31-August 3, 2016. St. Louis, Missouri.
  33. Varela, Sebastian, G. Balboa, V. Prasad, A. Ferguson, **T.W. Griffin**, and I.A. Ciampitti Integration of photogrammetry and remote sensing for biophysical parameters estimation in corn using sUAVS. Paper for International Conference on Precision Agriculture 2016 Abstract #2057. In proceedings of the 13th International Conference on Precision Agriculture, July 31-August 3, 2016. St. Louis, Missouri.
  34. Bennett, J., Sharda, A., and **Griffin, T.W.** Coverage Map Sharing within the Same Field between Multiple Vehicles using Automated Section Control. American Society of Agricultural and Biological Engineers Annual Meeting 2016.

35. Strasser, Ryan, Sharda, A., Flippo, D., Mangus, D., and **Griffin, T.W.** Real-time gauge wheel load uniformity when using active planter downforce control system. American Society of Agricultural and Biological Engineers Annual Meeting 2016.
36. Sharda, A., Strasser, R., Kulp, J., Flippo, D., Haag, L., and **Griffin, T.W.** Real-time gauge wheel load variability on planter with downforce control during field operation. American Society of Agricultural and Biological Engineers Annual Meeting 2016.
37. Sharda, A., Badua, S., Flippo, D., **Griffin, T.W.**, and Ciampitti, I. 2016. Real-time gauge wheel load variability on planter with downforce control during field operation. 13th International Conference on Precision Agriculture, St. Louis, Missouri, U.S., July 31 – August 2, 2016.
38. Bergtold, J.S., Yeager, E.A., and **Griffin, T.W.** Academic, Demographic and Spatial Factors in the Classroom Affecting Student Performance in Principles of Agricultural Economics Courses. Abstract accepted for presentation at 2016 Agricultural and Applied Economics Association 2016 Annual Meeting, July 31-August 2, Boston, Massachusetts 2016 Annual Meeting, July 31-August 2, Boston, Massachusetts.
39. Shanoyan, A., and **Griffin, T.W.** Farm Data as a Resource: Examining Big Data in Agriculture from the Resource-Based Theory Perspective. (abstract accepted for presentation at the 2016 IFAMA Annual World Symposium, Aarhus, Denmark, June 19-23).
40. Maurer, J.L. and **Griffin, T.W.** Applying Data Envelopment Analysis Methodology to Site-specific Precision Agriculture Data. Selected paper Southern Agricultural Economics Association Annual Meeting San Antonio, Texas, February 6-9, 2016 at the Hyatt Regency, San Antonio, TX.
41. Bennett, J., Sharda, A., and **Griffin, T.W.** Value of Internet Connectivity Uptime for Multiple Vehicles using Automated Section Control. Selected paper Southern Agricultural Economics Association Annual Meeting San Antonio, Texas, February 6-9, 2016 at the Hyatt Regency, San Antonio, TX.
42. **Griffin, T.W.** and Shockley, J. Farmers' willingness-to-pay for farmland based on machinery efficiency and precision technology adoption. Selected paper Southern Agricultural Economics Association Annual Meeting San Antonio, Texas, February 6-9, 2016 at the Hyatt Regency, San Antonio, TX.
43. **Griffin, T.W.**, Ibendahl, G., and Stabel, J. Do Profitable Farms Remain Profitable? Markov Switching Models Applied to Transition Probabilities. Selected paper Southern Agricultural Economics Association Annual Meeting San Antonio, Texas, February 6-9, 2016 at the Hyatt Regency, San Antonio, TX.
44. Mark, T.B., and **Griffin, T.W.** Defining the Barriers to Telematics for Precision Agriculture: Connectivity Supply and Demand. Selected paper Southern Agricultural Economics Association Annual Meeting San Antonio, Texas, February 6-9, 2016 at the Hyatt Regency, San Antonio, TX.
45. **Griffin, T.W.** 2015. Big Data Considerations for Agricultural Attorneys. American Agricultural Law Association Annual Meeting. Charleston, SC. October 2015.
46. **Griffin, T.W.**, A. Sharda, T.B. Mark, G. Ibendahl, M. Buschermohle, E. Barnes. 2015. Optimal Cotton Acreage Allocation for Machinery Complements under Weather Uncertainty. Annual International Meeting of the American Society of Agricultural and Biological Engineers. New Orleans, Louisiana July 26 – 29, 2015 Session 234 - Machinery Systems for Crop Production Control ID number 2185015.
47. Sharda, A., Stasser, R., Mangus, D., Haag, L., **Griffin, T.W.** 2015. Evaluation of Contour Planting System during Simulated Scenarios. Annual International Meeting of the American Society of Agricultural and Biological Engineers. New Orleans, Louisiana July 26 – 29, 2015.
48. Mark, T.B., **Griffin, T.W.**, D'Antoni, J. Making Farm Management Decisions Based on Global Weather Events. American Society of Agricultural and Biological Engineers Climate Change Symposium. Chicago, Illinois. May 2015.
49. Mark, T.B., Whitacre, B., and **Griffin, T.W.** 2015. Assessing the Value of Broadband Connectivity for Big Data and Telematics: Technical Efficiency. Southern Agricultural Economics Association Annual Meeting, February 3, 2015.
50. Liu, Z., Monfort, W.S., Kirkpatrick, T.L., and **Griffin, T.W.** 2015. Is Site-Specific Nematode Management Profitable: Evidence from Spatial Econometric Analysis. Southern Agricultural Economics Association Annual Meeting, February 3, 2015.

51. **Griffin, T.W.**, and Zapata, S.L. 2015. Optimal Cotton Insecticide Application Termination Timing: A Meta-Analysis. Southern Agricultural Economics Association Annual Meeting, February 3, 2015.
52. **Griffin, T.W.** 2015. Is Zero Tolerance an Optimal Weed Management Strategy? The Economic Threshold Revisited. Southern Agricultural Economics Association Annual Meeting, February 2015.
53. **Griffin, T.W.** and Mark, T.B. 2014. Value of Connectivity in Rural Areas: Case of Precision Agriculture Data. International Conference on Precision Agriculture. July 20-23, 2014. Sacramento, CA.
54. **Griffin, T.W.**, Barnes, E., Andrade-Sánchez, P., Arnall, B., Balkcom, K., Barber, L.T., Bauer, P., Brooks, P.A., Bronson, K., Buschermohle, M., Jones, A., Ge, Y., Roberson, G., Taylor, R., Tubana, B., Varco, J., Vellidis, G., Vories, E., Wilkerson, J. Yin, Xinhua. 2014. Pooled Analysis of Combined Primary Data across Multiple States and Investigators for the Development of a NDVI-Based On-the-go Nitrogen Application Algorithm for Cotton. American Society of Agricultural and Biological Engineers Annual International Meeting. July 13-16, 2014 Montreal, Quebec Canada.
55. Mark, T.B., D'Antoni, J., **Griffin, T.W.** 2014. Revisiting Days Suitable for Fieldwork Relative to Global Climate Cycles. Southern Agricultural Economics Association Annual Meeting February 1-4, 2014 Dallas, TX.
56. Liu, Z., Kirkpatrick, T.K. **Griffin, T.W.**, Monfort, W.S. 2013. Spatial Econometric Modeling for Site-Specific Nematode Management. Beltwide Cotton Conference. San Antonio, TX, January 2013.
57. Ibendahl, G. and **T. Griffin**. 2012. The Connection between Cash Rents, and Land Values. Southern Agricultural Economics Association annual meeting. Selected paper, Mobile, AL. February 4-7, 2012.
58. Traywick, L., **Griffin, T.W.** 2012. "Quality of Life Impacts of Adopting Precision Agriculture Technology on Cotton Farmers" Beltwide Cotton Conference, Orlando, FL.
59. Zheng Liu, **Griffin, T.W.**, Kirkpatrick, T.L., and Monfort, W.S. 2012. Spatial Approaches to Panel Data in Site-Specific Nematode Management in Cotton Production. Agricultural and Applied Economics Association Annual Meeting Seattle WA, August 12-14, 2012
60. **Griffin, T.W.** 2012. Aggregating Precision Agriculture Data across Regions. 11<sup>th</sup> International Conference on Precision Agriculture, Indianapolis, IN July 2012.
61. Liu, Z., **Griffin, T.W.**, Kirkpatrick, T.K., Monfort, W.S. 2012. Spatial Econometric Approaches to Develop Site-Specific Nematode Management Strategies in Cotton Production. 11<sup>th</sup> International Conference on Precision Agriculture, Indianapolis, IN July 2012.
62. **Griffin, T.W.**, Craig, C.C., Barnes, E.M., Nichols, R.L. 2012. Analyzing Field-Scale, On-Farm Experiments for Farm Management Decision Making. Beltwide Cotton Conferences, Orlando, Florida, January 3-6, 2012
63. Henderson, W. J. D. Mueller, A. Khalilian, W. S. Monfort, T. L. Kirkpatrick, **T. Griffin**, and C. Overstreet. 2012. Effect of soil texture on the damage caused to cotton by reniform nematodes. Beltwide Cotton Conferences, National Cotton Council of America, Memphis, TN.
64. Danforth, D.D., Ballard, K.K., **Griffin, T.W.**, O'Leary, P.F., Thompson, B., Wailes, E.J. 2011. Evaluation of the COTMAN Program: Focus Group and Quantitative Survey Methods. 2011 Beltwide Cotton Conferences, Atlanta, Georgia, January 4-7, 2011.
65. **Griffin, T.W.** and Mark, T.B. 2011. Spatial Econometric Approach to Yield Monitor Data Flow Delay and Evaluation of Existing Techniques for Automation. Annual International Meeting of the American Society of Agricultural and Biological Engineers, Louisville, KY.
66. **Griffin, T.W.** and Mark, T.B. 2011. Predicting Days Suitable for Fieldwork Based on El Nino. Annual International Meeting of the American Society of Agricultural and Biological Engineers, Louisville, KY.
67. Stark, C.R., **Griffin, T.W.**, Bryant, K. 2011. Identifying Quantity Trends in Agricultural Chemical Use for Soybean Production Using State Research Verification Program Historical Data. Soil & Water Conservation Society 66<sup>th</sup> International Annual Conference Washington, DC, July 17-20.
68. **Griffin, T.W.** and Traywick, L.S. 2010. Using Lay-Volunteers to Further the Land Grant Extension Mission: The Case of Arkansas Strong Women. Annual International Meeting of the American Society of Agricultural and Biological Engineers, Pittsburg, PA, June.

69. Saraswat, D., Espinoza, L., Kulkarni, S. **Griffin, T.W.** 2010. Comparative Performance Evaluation of Open and Closed Loop System for Spinner Disc Control on Dry Fertilizer Spreader. International Meeting of the American Society of Agricultural and Biological Engineers, Pittsburg, PA, June 2010.
70. **Griffin, T.W.**, Traywick, L.S. 2010. Quality of Life Impacts of Adopting Precision Agriculture Technology on Farm Equipment Operators. International Meeting of the American Society of Agricultural and Biological Engineers, Pittsburg, PA, June 2010.
71. **Griffin, T.W.** 2010. A Regional Cost Assessment of GPS Outage to Agricultural Guidance Technology. International Meeting of the American Society of Agricultural and Biological Engineers, Pittsburg, PA, June 2010.
72. Kulkarni, S., Barber, L.T., Barnes, E., **Griffin, T.W.**, Saraswat, D. Cotton Canopy Response to Nitrogen Treatments in Arkansas: Observations using Crop Circle™ ACS-470. International Meeting of the American Society of Agricultural and Biological Engineers, Pittsburg, PA, June 2010.
73. **Griffin, T.W.**, Winstead, A., Fulton, J., Norwood, S., Adrian, A., Runge, M., and Kelton, J. Evaluating Adoption Barriers of Precision Agriculture Technologies by Farmers. International Meeting of the American Society of Agricultural and Biological Engineers, Pittsburg, PA, June 2010.
74. **Griffin, T.W.** 2010. Development of On-the-go Nitrogen Application Algorithms for Cotton Production Based on Active Reflectance Sensors. International Meeting of the American Society of Agricultural and Biological Engineers, Pittsburg, PA, June 2010.
75. **Griffin, T.W.** 2010. Using Days Suitable for Fieldwork Information in the Farm-Management Decision-Making Process. Beltwide Cotton Conference, New Orleans, LA, January 2010.
76. **Griffin, T.W.** 2010. A Meta-Analytic Synthesis of Insecticide Termination Decision Rules. Beltwide Cotton Conference, New Orleans, LA, January 2010.
77. **Griffin, T.W.**, Bongiovanni, R., and Lowenberg-DeBoer, J. 2010. Worldwide Adoption of Precision Agriculture Technology: The 2010 Update. 10<sup>th</sup> International Conference on Precision Agriculture, Denver, CO, July 2010.
78. **Griffin, T.W.** 2010. The Cost of Dependence upon GPS-Enabled Navigation Technologies. 10<sup>th</sup> International Conference on Precision Agriculture, Denver, CO, July 2010.
79. **Griffin, T.W.**, Winstead, A., Fulton, J., Norwood, S., Adrian, A., Runge, M., and Kelton, J. 2010. Adoption and Use of Precision Agriculture Technologies by Practitioners. 10<sup>th</sup> International Conference on Precision Agriculture, Denver, CO, July 2010.
80. Traywick, L.S. and **Griffin, T.W.** 2010. Quality of Life Impacts of Adopting Precision Agriculture Technology on Older Farmer Equipment Operators. 31<sup>st</sup> Annual Meeting of the Southern Gerontological Society, Richmond, VA.
81. **Griffin, T.W.**, Griffith, G.M., and Norsworthy, J.K. 2010. Economics of herbicide programs associated with Liberty Link® and Roundup Ready Flex® cotton systems. Southern Weed Science Society 63:125, Little Rock, AR, February 2010.
82. **Griffin, T.W.** and Lee, C.T. 2010. Using Days Suitable for Fieldwork Information in the Farm-Management Decision-Making Process. Beltwide Cotton Conferences, New Orleans, LA.
83. **Griffin, T.W.** 2010. A Meta-Analytic Synthesis of Insecticide Termination Decision Rules. Beltwide Cotton Conferences, January 4-7, New Orleans, LA.
84. **Griffin, T.W.** 2009. Making the Most of Yield Monitor Data for Field-scale On-farm Experiments. Annual International Meeting of the American Society of Agricultural and Biological Engineers, Reno, Nevada, June 21-24, 2009.
85. **Griffin, T.W.** 2009. Spatial Econometric Methods for Analyzing Site-specific Field-scale Experiment Data. Annual International Meeting of the American Society of Agricultural and Biological Engineers, 2009 Reno, Nevada, June 21 - June 24, 2009
86. **Griffin, T.W.** 2009. Whole-Farm Benefits of GPS-Enabled Navigation Technologies. International Meeting of the American Society of Agricultural and Biological Engineers, Reno, Nevada, June 21-24.
87. **Griffin, T.W.**, Mark, T.B., Dobbins, C.L. and Lowenberg-DeBoer, J.M. 2009. Whole farm profitability impact from implementing and harvesting on-farm trials with precision agriculture technologies. 17th International Farm Management Congress Food, Fiber, and Energy for the Future. Bloomington, Illinois, USA. July 19-24, 2009. pp 442-453.

88. **Griffin, T.W.** 2009. Environmental and Economic Impact of COTMAN: A Meta-Analytic Synthesis. Meta-analysis for Economic Research International Colloquium, Corvallis, OR October 2009.
89. **Griffin, T.W.** 2009. Small-plot versus Field-scale Experiments for Fertility Research. Beltwide Cotton Conference, San Antonio, TX, January 2009.
90. **Griffin, T.W.** and Danforth, D. 2009. Meta-analytic Analysis of the COTMAN Program. Beltwide Cotton Conference, San Antonio, TX, January 2009.
91. Kulkarni, S., **Griffin, T.W.**, and Espinoza, L. 2009. Soil Compaction Patterns by On Board Module Builders. Beltwide Cotton Conference, San Antonio, TX, January 2009.
92. **Griffin, T.W.** 2009. Conducting Long-Term Case Studies in Extension: Farmers' use of Precision Agriculture Example, Galaxy Conference, Hot Springs, AR.
93. Vories, E., Kitchen, N., Sudduth, K., Sadler, J. **Griffin, T.**, Stevens, G., Dunn, D. Using Precision Agriculture Methods to Predict Soil Suitability for Rainfed Corn Production. Annual International Meeting of the American Society of Agricultural and Biological Engineers. Providence, RI June 29 – July 2, 2008 Paper Number: 084437
94. **Griffin, T.W.**, Lambert, D.M., and Lowenberg-DeBoer, J. 2008. Economics of GPS-Enabled Navigation Technologies Navigation Technologies. 9<sup>th</sup> International Conference on Precision Agriculture, Denver, CO July 21-23, 2008.
95. **Griffin, T.W.**, and Slinsky, S.P. 2008. On-board module builders, on-farm research, and precision agriculture: information technology from cotton fields to cotton gins to cotton warehouses and back again. 9<sup>th</sup> International Conference on Precision Agriculture, Denver, CO July 21-23, 2008.
96. **Griffin, T.W.**, R.J.G.M. Florax, and J. Lowenberg-DeBoer. 2008. Evaluating Spatial Effects Induced by Alternative On-farm Trial Experimental Designs with Cross-regressive Variables Using Monte Carlo Methods. 9<sup>th</sup> International Conference on Precision Agriculture, Denver, CO July 21-23, 2008.
97. **Griffin, T.W.**, Dobbins, C.L. and Lowenberg-DeBoer, 2007. Case Study Evidence of New Opportunities for Farm Management Specialists in Spatial Analysis of On-farm Trial Data. National Farm Management Conference June 12-14, 2007 in Rochester, MN.
98. **Griffin, T.W.**, Florax, R.J.G.M, and Lowenberg-DeBoer, 2006. Field-Scale Experimental Designs and Spatial Econometric Methods for Precision Farming: Strip-Trial Designs for Rice Production Decision Making. Southern Agricultural Economics Association Annual Meeting, Orlando, FL, February 2006.
99. **Griffin, T.W.**, Lowenberg-DeBoer, J., and Florax, R.J.G.M. 2006. Improving Farm Management Decision Making: Experiences from Spatial Analysis of Yield Monitor Data from Field-Scale-On-Farm Trials, 8<sup>th</sup> International Conference on Precision Agriculture and Other Resource Management, Minneapolis Minnesota, July 2006.
100. Lowenberg-DeBoer, J., **Griffin, T.W.**, and Florax, R.J.G.M. 2006. Local Spatial Autocorrelation in Precision Agriculture Settings Accounting for Micro-Scale Topography Differences, 8<sup>th</sup> International Conference on Precision Agriculture and Other Resource Management, Minneapolis Minnesota.
101. **Griffin, T.W.**, Dobbins, C.L., and Lowenberg-DeBoer, 2006. Case Study of On-Farm Experiments and Farm Management Decision Making. Annual Meeting of the American Agricultural Economics Association in Portland, Oregon July 29-August 1, 2007.
102. **Griffin, T.W.**, Fitzgerald, G, Lambert, D.M., Lowenberg-DeBoer, J., Barnes, E., and Roth, R. 2005. Testing Appropriate On-Farm Trial Designs and Statistical Methods for Cotton Precision Farming. *Beltwide Cotton Conference*, January 4-7, 2005, New Orleans, LA.
103. **Griffin, T.W.**, Lambert, D.M., and Lowenberg-DeBoer, J. 2004. Testing for Appropriate On-Farm Trial Designs and Statistical Methods for Precision Farming: A Simulation Approach. 7<sup>th</sup> International Conference on Precision Agriculture and Other Precision Resources Management, Madison, WI.
104. Lambert, D.M. and **Griffin, T.W.** 2004. Analysis of Government Farm Subsidies on Farmland Cash Rental Rates Using a Spatial Distributed Lag Model. Annual American Agriculture Economics Association Meeting, Denver, CO.
105. **Griffin, T.W.**, J.M. Lowenberg-DeBoer, D.M. Lambert, J. Peone, T. Payne and S.J. Daberkow. Precision Farming: Adoption, Profitability, and Making Better Use of Data. Triennial North Central Farm Management Conference, July 14-16, 2004, Lexington, KY.
106. **Griffin, T.W.** and Popp, J. 2000. Adoption, Profitability and Potential Trends of Precision Farming in Arkansas. Southern Agricultural Economics Association Lexington, KY.

107. **Griffin, T.W.** and Popp, J. 2000. Economics of Variable Rate Applications of Phosphorus on a Rice and Soybean Rotation in Arkansas. Soil and Water Conservation Society. July, St. Louis, MO.
108. **Griffin, T.W.**, Popp, J., and Buland, D. 2000. Economics of Variable Rate Applications of Phosphorus on a Rice and Soybean Rotation in Arkansas. In: P.C. Robert, R.H. Rust, and W.E. Larson (eds.) 5<sup>th</sup> International Conference on Precision Agriculture, Bloomington, MN July 16-19, 2000, Madison, WI.
109. **Griffin, T.W.** and Popp, J. 2000. Profitability of Variable Rate Phosphorus in a Two Crop Rotation. Selected paper American Agricultural Economics Association July 31-August 2, 2000 Tampa, FL.
110. **Griffin, T.W.**, Oriade, C., Dillon, C.R. 1999. Economics of Precision Farming in Arkansas. Southern Agricultural Economics Association Annual Meeting, Memphis, TN.

#### Conference Proceedings - Poster Presentations

1. Brokesh, E., and **Griffin, T.W.** 2019. Revisiting annual machine usage based upon used equipment available on dealer lots. AIM American Society of Agricultural and Biological Engineers, Boston, MA. July 7-10, 2019
2. Cullop, J., Ibendahl, G., Shockley, J., Barnes, E., Devine, J., & **Griffin, T.W.** 2018. Economics of Swarm Bot Profitability for Cotton Harvesting. In Proceedings of the 14th International Conference on Precision Agriculture (unpaginated, online). Monticello, IL: International Society of Precision Agriculture.
3. **Griffin, T.W.** and Yeager, E.A. 2018. Adoption of Precision Agriculture Technology: An Analysis of Kansas Farms. agri benchmark Cash Crop Conference 2018. Beijing China. June 2018.
4. Cullop, J., Miller, N.J., Sharda, A., and **Griffin, T.W.** 2018. Timeline of Precision Ag Technology Adoption. Kansas Ag Research and Technology Association Annual Conference. Junction City, KS January 18-19, 2018.
5. Mark, T.B., **Griffin, T.W.**, and Kim, G. Will Broadband Availability Constrain Big Data and Telematics Adoption and Usage? *21<sup>st</sup> International Farm Management Congress*. Edinburgh, Scotland. July 2-7, 2017.
6. Goeringer, L.P., Suri, M., Ellixson, A., and **Griffin, T.W.** 2017. Law Fails to Keep Up with Technology: Solutions to Helping Producers Maintain Farm Data Ownership. *21<sup>st</sup> International Farm Management Congress*. Ms. No. IJAM-17-36 Edinburgh, Scotland. July 2-7, 2017.
7. Hutchison, M., Traywick, L.S., and **Griffin, T.W.** 2017. OT Students' Knowledge of Aging and Anticipated Professional Population Choice. 38th Annual Meeting of the Southern Gerontological Society (SGS), Asheville, North Carolina, April 6-9, 2017.
8. Miller, N.J., **T.W. Griffin**, J. Bergtold, I.A. Ciampitti, A. Sharda, A. Shanoyan. 2017. Precision Agriculture Technology Adoption Patterns by Kansas Farms. 20th Annual Kansas Agricultural Technologies Conference of the Kansas Agricultural Research and Technology Association. Junction City, Kansas. January 19-20, 2017.
9. Meeks, C., Snider, J.L., Porter, W.M., **Griffin, T.W.**, Barnes, T.L. 2017. Evaluating Daily Yield Losses Due to Delayed Harvest after Defoliation. Beltwide Cotton Conference January 4-5, 2017. Dallas, Texas
10. Hutchison, M., Traywick, L.S., and **Griffin, T.W.** 2016. Occupational Therapy Students' Knowledge of Aging Relative to Population Choice. OT Gaining Altitude Fall Conference. University of Central Arkansas and Arkansas Occupational Therapy Association Joint Conference, October 7, 2016, Conway, Arkansas.
11. Varela, S., G. Balboa, V. Prasad, A. Ferguson, **T. Griffin**, I. Ciampitti. 2016. Spatial-temporal Evaluation of Plant Phenotypic Traits Via Imagery Collected by Unmanned Aerial Systems (UAS). In proceedings of the 13th International Conference on Precision Agriculture, July 31-August 3, 2016. St. Louis, Missouri.
12. Varela, Sebastian, Vara Prasad, P.V., Balboa, Guillermo, **Griffin, T.W.**, Ferguson, A., and Ciampitti, I.A. 2015. Integrated Imagery Approaches for Predicting Plant Growth in Corn via Imagery Collected by Unmanned Aerial Systems (UAS). Student poster presented at KSRE Extension Annual Conference Precision Agriculture Mini-symposium. Kansas State University, Manhattan, Kansas. October 19, 2015.
13. Carls, Emily, and **Griffin, T.W.** 2015. Kansas Days Suitable for Fieldwork. Poster presented at Risk and Profit Conference, Department of Agricultural Economics, Kansas State University, Manhattan, KS. August 20-21, 2015.

14. Carls, Emily, and **Griffin, T.W.** 2015. Number of Days Suitable for Fieldwork (DSFW). Poster presented at Undergraduate Research Showcase hosted by Gamma Sigma Delta, Kansas State University, Manhattan, KS. April 2015.
15. Mark, T.B., D'Antoni, J.M., **Griffin, T.W.** 2014. How do Global Weather Patterns Influence Days Suitable for Field Work? Agricultural and Applied Economics Association Annual Meeting.
16. Spurlock, T., Rothrock, C., Monfort, W.S., **Griffin, T.W.** 2014. Disease scouting for Aerial blight based on logical areas of collection in soybean fields rotated with rice. International Conference on Precision Agriculture. July 20-23, 2014. Sacramento, CA.
17. Ross, W.J., **Griffin, T.W.**, Grimes, C., and Kelley, S., 2011. Estimating Yield Potential by Planting Date Utilizing Observed Data from the Soybean Research Verification Program. Southern Branch American Society of Agronomy Annual Meeting, February 6-8, 2011, Corpus Christi, Texas.
18. Kulkarni, S., Espinoza, L., **Griffin, T.W.**, Bajwa, S.G., Barnes, E. 2010. Soil Compaction Patterns by Conventional and On-Board Module Building Systems. Beltwide Cotton Conferences, New Orleans, LA.
19. Griffith, G.M., **Griffin, T.W.** Norsworthy, J.K., Johnson, B., Bangarwa, S.K., Wilson, M.J. 2010. Spatial Movement of Glyphosate-Resistant Palmer Amaranth in Roundup Ready Flex® Cotton. Beltwide Cotton Conferences, January 4-7, 2010, New Orleans, LA.
20. Stewart Runsick, **Terry Griffin**, Ralph Mazzanti, Chuck Wilson, Brad Watkins, and Jeffrey Hignight. 2010. Estimating Yield Potential by Planting Date Utilizing Observed Data from the Rice Research Verification Program. Rice Technical Working Group, February 22-25, 2010, Biloxi, MS.
21. Traywick, L.; Gilmore, L; **Griffin, T.W.**; Sartor, M.R. 2010. Using Lay-Volunteers to Further the Land Grant Extension Mission: The Case of the Arkansas Strong Women Program. 7<sup>th</sup> Natural Resource Extension Professionals Conference, Fairbanks AK.
22. Traywick, L. and **Griffin, T.W.** 2010. Quality of Life Impacts of Adopting Precision Agriculture Technology on Older Farm Equipment Operators. 31<sup>st</sup> Annual Meeting Southern Gerontological Society, Applied Gerontology as Community Engagement, April 7-10, Richmond, VA.
23. Traywick, L., **Griffin, T.W.**, Gilmore, L. Sorter, M.R. 2010. Strong Women, 7<sup>th</sup> Natural Resource Extension Professionals Conference, June 27-30, Fairbanks, AL.
24. Griffith, G.M, **Griffin, T.W.**, Norsworthy, J. 2010. Effect of herbicide program on seed rain in Liberty Link and Roundup Ready Flex cotton" Joint Annual meeting of the Society for Range Management and the Weed Science Society of America, February 7-11, Denver, CO.
25. Griffith, G.M, **Griffin, T.W.**, Norsworthy, J. 2010. Effect of herbicide program on seed rain in Liberty Link and Roundup Ready Flex cotton. Southern Weed Science Society, January 24-27, Little Rock, AR.
26. Griffith, G.M, **Griffin, T.W.**, Norsworthy, J. 2010. Spatial movement of glyphosate-resistant Palmer amaranth in a Roundup Ready Flex production system, Joint Annual meeting of the Society for Range Management and the Weed Science Society of America, February 7-11, Denver, CO.
27. Griffith, G.M, **Griffin, T.W.**, Norsworthy, J. 2010. Spatial movement of glyphosate-resistant Palmer amaranth in a Roundup Ready Flex production system. Southern Weed Science Society, January 24-27, Little Rock, AR.
28. **Griffin, T.W.**, K.B. Watkins, J.A. Hignight, C.E. Wilson, Jr., S. Runsick, and R. Mazzanti. 2009. Using Observed Data from Rice Research and Verification Program for Farm Management Decision Making, Rice Research and Extension Center Field Day, August 2009.
29. Kulkarni, S.S., Espinoza, L., Mukhammadzakhrah, I, **Griffin, T.W.** 2008. Comparison of Soil Compaction Patterns by On-Board Module Builders. Beltwide Cotton Conferences, Nashville, Tennessee, January 8-11, 2008
30. **Griffin, T.W.**, Lambert, D.M., and Lowenberg-DeBoer, J. 2004. On-Farm Experimental Designs for the Evaluation of Precision Agriculture Technologies. Purdue University Sigma Xi Poster Competition. February 18, 2004.
31. **Griffin, T.W.**, Lambert, D.M, Bongiovanni, R. and Lowenberg-DeBoer, J. 2003. Understanding Site Specific Crop Response. 2003 Info Ag Conference in Indianapolis, IN.
32. **Griffin, T.W.**, D.R. Oswald, Evans, S.P. Solomon S. G., Nimrick, K., R. J. Tillotson, and S. Hobson. 2002. Utilizing Precision Farming Technologies to Design and Implement Management Intensive Grazing Systems. National Association of County Agricultural Agents, Savannah, GA.

33. **Griffin, T.W.**, Evans, S.P., and Oswald, D.R. 2002. Utilizing Precision Farming Technologies to Implement and Monitor Management Intensive Grazing Systems. In: P.C. Robert et al., ed. 6<sup>th</sup> International Conference on Precision Agriculture, Madison, WI.
34. **Griffin, T.W.** and Popp, J. 2000. Adoption Trends of Early Adopters of Precision Farming in Arkansas. 5th International Conference on Precision Agriculture and Precision Resources. In: P.C. Robert, R.H. Rust, and W.E. Larson (eds.) 5<sup>th</sup> International Conference on Precision Agriculture, Bloomington, MN. July 16-19, 2000, Madison, WI.
35. **Griffin, T.W.**, G.K. Roskamp, D.E. Terry, W.H. Baker, L.E. Brinkley, U.R. Antuniassi, D.S. Jaccound-Filho, A.L. Musselman, and T.C. Sharp. 2000. International Advancement and Achievement in Global Precision Agriculture in the United States and Brazil. In: P.C. Robert et al., ed. 6<sup>th</sup> International Conference on Precision Agriculture, Madison, WI.
36. **Griffin, T.W.** and Popp, J. 2000. Promotion and Adoption of Precision Farming in Arkansas. American Agricultural Economics Association, July 31-August 2, 2000, Tampa, FL.

### Professional Meetings Presentations

1. **Griffin, T.W.** 2018. Precision Ag Adoption Trends & Farm Data Utilization. NCERA-280 Site Specific Management Workshop Group. Manhattan, KS May 22, 2018.
2. **Griffin, T.W.** and Ferrell, S.L. 2018. Big Data in Agriculture: Opportunities and Risks. 2018S Annual Agricultural Research Congressional Exhibition and Reception. Sponsored by Agricultural & Applied Economics Association; Council on Food, Agricultural and Resource Economics, USDA RME. Washington, DC. June 2018.
3. **Griffin, T.W.** 2017. Making Maps with GIS for Ag Economists. Agricultural Economics Graduate Student Association Brown Bag Lunch, Kansas State University. Manhattan, Kansas. September 14, 2017.
4. Organized 2-hours Precision Ag Update Session at North Central Region Extension Farm Management Committee including presentations by Tyler Mark (UKY), Jordan Shockley (UKY), Shannon Ferrell (OSU), Ray Asebedo (KSU agronomy). Presented "Farm Data Issues". Manhattan, Ks. May 19, 2017.
5. **Griffin, T.W.** 2016. Meta-analysis for Economic Research. Agricultural Economics Graduate Student Association Brown Bag Lunch, Kansas State University. Manhattan, Kansas. 5 people. October 14, 2016
6. Ibendahl, G. and **Griffin, T.W.** 2016. An examination of how machinery investments affect farm profitability and risk. NACC & NC-1177 Joint Meeting. Federal Reserve Bank of Kansas City – Denver Branch, Denver, CO. October 3-4, 2016
7. **Griffin, T.W.** Kevin Herbel, Gregg Ibendahl, Ajay Sharda, Ignacio Ciampitti, Brian McCornack. 2016. Adoption and Utilization of Precision Agricultural Technology Impacts on Whole-farm Performance. National Farm Management Conference, Sioux Falls, SD June 2016
8. **Griffin, T.W.** 2015. Precision Agriculture Issues and its Evolution into Big Data. Australian Agricultural Resource and Economics Society, New South Wales Branch, University of Sydney, 30 June 2015
9. **Griffin, T.W.** 2015. Economics of Planter Technology. Planter Research Workgroup, Stillwater, Oklahoma. June 4-5, 2015.
10. **Griffin, T.W.** 2015. Precision Agriculture Update. North Central Farm Management Extension Committee Meeting, West Lafayette, IN May 21-22, 2015
11. **Griffin, T.W.** 2015. Getting Started with Meta-analysis. Professional Development Seminar Kansas State University – Graduate Students Agricultural Economics. Manhattan, Kansas.
12. **Griffin, T.W.** 2015. 15 Minutes of the Theory and Practice of Spatial Econometrics. March 2015 Brown Bag Lunch Seminar. Kansas State University – Graduate Students Agricultural Economics. March 2, 2015. Manhattan, Kansas.
13. **Griffin, T.W.** 2015. Pooled data analysis of NDVI nitrogen studies. 2015 Precision Cotton Researcher's Meeting. January 7, 2015. San Antonio, Texas.
14. **Griffin, T.W.** 2014. Capturing Value from Precision Data: Big Data. Cotton Inc. Crop Management Seminar. Tifton, GA. November 12, 2014.
15. **Griffin, T.W.** 2014. Big Data. Mississippi Agricultural Economics Association. Starkville, MS. November 7, 2014.



16. **Griffin, T.W.** Mark, T.B., and D'Antoni, J. 2014. Global Weather Patterns Influence on Days Suitable for Fieldwork, Delta States Farm Management Working Group SERA035. Tillar, AR, May 23, 2014.
17. **Griffin, T.W.** 2014. Pooled analysis of yield response to nitrogen and relationships to the Normalized Difference Vegetation Index (NDVI). Precision Cotton Researchers' Meeting in conjunction with Beltwide Cotton Conference, January 8, 2014, New Orleans, LA.
18. Wright, R.E., Bingner, R.L., **Griffin, T.W.**, Bouldin, J.L. 2011. AnnAGNPS Model simulation of sediment and nutrient loss on a Cross County, Arkansas Watershed. Arkansas Crop Protection Association Research Conference, In Abstracts Research Conference Vol 15 Fayetteville, AR.
19. **Griffin, T.W.** 2011. Mid-South Farmland Values and Update of the Delta States Farm Management Work Group. Southern Economics Extension Committee, Lexington, KY.
20. **Griffin, T.W.** and Erickson, B.E. 2011. Precision Ag Survey Updates with Bruce Erickson. NCERA-180, Little Rock, AR.
21. **Griffin, T.** and Traywick, L. 2011. Precision Agriculture and the Quality of Life Aspects of the Rural Household. Delta Regional Farm Management and Agricultural Policy Working Group SERA-35 Annual Meeting, Columbus, AR
22. **Griffin, T.W.** 2010. Commercialization of Spatial Statistical Analysis: Economics of Information. Purdue University Spatial Health and Production Economics Seminar. West Lafayette, IN.
23. **Griffin, T.W.** 2010. Synthesizing Agricultural Field Experiments: A Meta-Analysis of Optimal Timing to Terminate Insecticide Application on Cotton. Department of Agricultural Economics, Purdue University, West Lafayette, IN.
24. **Griffin, T.W.**, Watkins, K.B., Stark, B., Runsick, S., Mazzanti, R., Grimes, C., Kelley, S. Wilson, C., and Ross, J. 2010. Estimating Rice and Soybean Yield Potential by Planting Date for Whole-Farm Management Utilizing Observed Data from the Arkansas Research Verification Program. Delta States Farm Management Working Group SERA035.
25. Bryant, K. and **Griffin, T.W.** 2010. Impact of Herbicide Resistance on Conservation Tillage: A Whole-farm Linear Programming Perspective. 2010 Delta States Farm Management Working Group SERA035.
26. Erickson, B.E. and **Griffin, T.W.** 2010. Precision Agriculture Collaboration: Agronomic, Engineering and Economics with Bruce Erickson. NCERA-180 Working Group on Site-Specific Management, Lexington, KY.
27. **Griffin, T.W.** 2010. Advancements in Inferential Spatial Statistical Analysis. University of Arkansas for Medical Sciences, Department of Biostatistics Journal Club Meeting, Little Rock, AR.
28. **Griffin, T.W.** 2010. Development of On-the-go Nitrogen Application Algorithms for Cotton. Nitrogen Use Efficiency Conference, Stillwater, OK.
29. Griffith, G.M., J.K. Norsworthy, and **T.W. Griffin.** 2010. Cotton yield reductions associated with spatial movement of glyphosate-resistant Palmer amaranth. Arkansas Crop Protection Association Research Conference In Abstracts Research Conference Vol 14:11, Fayetteville, AR.
30. **Griffin, T.W.** 2009. Combining Seemingly Incompatible Data: A Bio-economic Analysis of Cotton Insecticide Termination Timing Studies. Arkansas Crop Protection Association Research Conference In Abstracts Research Conference Vol 13, Fayetteville, AR.
31. Hignight, J., **Griffin, T.W.**, Watkins, K.B., Wilson, C., Runsick, S. and Mazzanti, R. 2009. Utilizing Observed Data for Farm Management Decision Making: Yield Potential by Planting Dates based on Rice Verification Program. Arkansas Crop Protection Association Research Conference Abstracts Vol 13 Fayetteville, AR.
32. Lee, C.T. and **Griffin, T.W.** 2009. Using Days Suitable for Fieldwork Information in the Farm-Management Decision-Making Process. Arkansas Crop Protection Association Research Conference Abstracts Vol 13 Fayetteville, AR.
33. **Griffin, T.W.** 2009. Combining Seemingly Incompatible Data: A Bio-economic Analysis of Cotton Insecticide Termination Timing Studies. Cotton Inc. COTMAN Researchers Meeting. Austin, TX.
34. **Griffin, T.W.** 2009. Multi-site Yield/NDVI Relationship. Cotton Incorporated COTMAN Researchers meeting November 12, 2009 in Austin, TX.
35. Lowenberg-DeBoer, J., and **Griffin, T.W.** 2009. FutureFarm and the Future of Precision Agriculture in Europe. Future Farm session, 7<sup>th</sup> European Conference on Precision Agriculture. The Netherlands.

36. **Griffin, T.W.**, and Brad Watkins. 2009. Farm Management Trends Based on USDA-ARMS Data. Delta States Farm Management Working Group SERA035, Vicksburg, MS, June 2009.
37. **Griffin, T.W.** Usefulness of Meta-Analysis in Pharmacoepidemiologic Studies. University of Arkansas for Medical Sciences College of Pharmacy Seminar.
38. **Griffin, T.W.** 2008. Integrating Extension and Research. Crop Sciences Department, University of Arkansas at Petit Jean State Park, August 15, 2008.
39. **Griffin, T.W.** 2008. Days Suitable for Fieldwork in the Delta States and Whole-farm Profitability Impacts of Machinery Efficiency: Whole-farm Linear Programming Model. SERA-035 Delta States Farm Management Group. May 29, 2008.
40. **Griffin, T.W.** 2007. Precision Agriculture: How farmers are making the most of the technology. SERA-35 Delta States Farm Management Group on May 24, 2007.
41. Erickson, B.E. and **Griffin, T.W.** 2007. Precision Agriculture Collaboration: Agronomic, Engineering & Economics. NCERA180: Site Specific Crop Management Working Group. Lexington, KY

## EXTENSION

### Extension Handbooks

1. Ferrell, S.L. and **Griffin, T.W.** 2018. Managing Farm Risk Using Big Data: A guide to understanding the opportunities and challenges of agricultural data for your farm. Handbook sponsored by USDA NIFA RME <http://agecon.okstate.edu/farmdata/>

### Extension Decision Tools: Interactive Internet Dashboards

1. Carls, Emily, and **Griffin, T.W.** Kansas Days Suitable for Fieldwork. Note: USDA NASS no longer provides data by Crop Reporting District thus only state-level chart is being updated <http://www.agmanager.info/farmmgt/machinery/FWD.asp>
2. **Griffin, T.W.** Kansas Crop Progress Charts. (no longer supported). Developed in R with plot.ly. <https://www.agmanager.info/machinery/crop-progress-charts>
3. Er, Emrah, and **Griffin, T.W.** Using Historic Farmland Values for Today's Farm Management Decision Making. Developed with R and RShiny. Went live September 10, 2019 <http://129.130.54.36:3838/Cotton/>
4. **Griffin, T.W.** Kansas Days Suitable for Fieldwork Weekly Update developed with R and RShiny. Will go live March 2020 <http://129.130.54.36:3838/KansasDays/>
5. **Griffin, T.W.** Beta - Cotton Harvester Machinery and Acreage Decision Tool. In development for Cotton Inc. with R and RShiny. <https://agmanager.shinyapps.io/cottonHarvestEconomics/>
6. **Griffin, T.W.** Beta – Cover Crop Species Seed Mix Optimization Tool. Linear programming optimization tool in development for USDA NRCS with R and RShiny
7. **Griffin, T.W.** Beta – Least Cost Fertilizer Blend Mix Optimization Tool Demonstration. Linear programming optimization tool developed with R and RShiny. <https://agmanager.shinyapps.io/fertilizerBlenderDemo/>

### Extension Fact Sheets and Publications

1. Harris, K.D., and **Griffin, T.W.** 2019. The Old “Block” and Chain: How Farm Data Will Be Used on the Blockchain. Kansas State University Department of Agricultural Economics AgManager. July 18, 2019. <https://www.agmanager.info/machinery/precision-agriculture/old-%E2%80%9Cblock%E2%80%9D-and-chain-how-farm-data-will-be-used-blockchain>
2. **Griffin, T.W.**, Harris, K.D., and Ward, J.K. 2019. Distributed Ledger Technology Applied to Farm Data: Tracking Yield Monitor Data Changes with Blockchain. AgManager factsheet. Department of Agricultural Economics, Kansas State University. July 3, 2019. <https://www.agmanager.info/machinery/precision-agriculture/distributed-ledger-technology-applied-farm-data-tracking-yield>

3. Stiles, S., and **Griffin, T.W.** 2019. Estimating Arkansas Farmland Values Based on Historic Index Numbers. University of Arkansas Division of Agriculture FSA35.
4. **Griffin, T.W.**, and Taylor, M.R. 2018. Estimating Kansas Farmland Values Based on Historic Index Numbers. K-State Research and Extension KSU-AgEcon-TG-MT-2018.1
5. Cullop, J.T., and **Griffin, T.W.** 2018. Role of Utility-sized Tractors in Commercial Agricultural Operations. KSU-AgEcon-JC-TG-2018.1
6. Miller, N.J., **Griffin, T.W.**, Bergtold, J., Ciampitti, I.A., and Sharda, A. 2017. Kansas Farm Adoption of Embodied Knowledge and Information Intensive Precision Agriculture Technology Bundles. KFMA Research Article KSU-AgEcon-NM-TG-JB-IC-AS-2017.1 December 7, 2017
7. **Griffin, T.W.**, and Lashmet, T. 2017. Estimating Tax Liability Using Stepped-Up Basis. Kansas State University Department of Agricultural Economics Extension Publication. KSU-AgEcon-TG-TDL-2017.1 November 30, 2017.
8. **Griffin, T.W.** 2017. How Long Does It Typically Take Before Farmers Adopt New Technologies? KFMA Research Article KSU-AgEcon-TG-2017.1 September 28, 2017.
9. Ellixson, Ashley and **Griffin, T.W.** 2016. Farm Data: Ownership and Protections (January, 2017). University of Maryland, College Park, Maryland FS-1055 doi:10.13016/M25N8S
10. Torrez, C., Miller, N.J., Ramsey, S., and **Griffin, T.W.** 2016. Factors Influencing the Adoption of Precision Agricultural Technologies by Kansas Farmers. Kansas State University Department of Agricultural Economics Extension Publication. KSU-AgEcon-CT-NM-SR-TG-2016.1. December 2016.
11. Stabel, J., **Griffin, T.W.**, and Ibendahl, G. 2016. Likelihood of Kansas Farm Financial Persistence. Kansas State University Department of Agricultural Economics Extension Publication. December 2016.
12. Miller, N.J., **Griffin, T.W.**, and Bergtold, J. 2016. Kansas Farms' Sequence of Information-intensive Precision Agriculture Technology Adoption in Bundles. Kansas State University Department of Agricultural Economics Extension Publication. KSU-AgEcon-NM-TG-JB\_2016.1. September 2016
13. Ellixson, Ashley and **Griffin, T.W.** 2016. Farm Data: Ownership and Protections (September 16, 2016). Available at SSRN: <http://dx.doi.org/10.2139/ssrn.2839811>
14. **Griffin, T.W.**, Miller, N.J., Ciampitti, I., Sharda, A., Torrez, C. 2016. Precision Agriculture Technology Adoption and Obsolescence. Kansas State University Department of Agricultural Economics Extension Publication. KFMA Research Paper. KSU-AgEcon-TG-2016.1 September 14, 2016.
15. Sharda, A., Haag, L., **Griffin, T.W.**, Fulton, J.P., Badua, S., and Ciampitti, I. 2016. Planter downforce system for seed depth uniformity. K-State Research and Extension. MF3331.
16. Sharda, A., **Griffin, T.W.**, Haag, L., Mangus, D., Fulton, J., and Slocombe, J. 2016. Pulse Width Modulation technology for Liquid Application. K-State Research and Extension. MF3314.
17. Sharda, A., **Griffin, T.W.**, Haag, L., Slocombe, J.W. 2016. Automatic Boom Height Control Technology for Agricultural Sprayers. Kansas State University Agricultural Experiment Station and Cooperative Extension Service. K-State Research and Extension. MF3299 July 2016
18. **Griffin, T.W.** 2016. Value of Farm Data: Proving Damages Based on Trade Secret Protections. Kansas State University Department of Agricultural Economics Extension Publication. KSU-AgEcon-TG-2016.2 June 2016.
19. **Griffin, T.W.** 2016. Adoption of Precision Agricultural Technology in Kansas. Kansas State University Department of Agricultural Economics Extension Publication. KFMA Research Paper. KSU-AgEcon-TG-2016.1 June 2016
20. Ellixson, A., and **Griffin, T.W.** 2016. Ownership and Protections of Farm Data. Kansas State University Department of Agricultural Economics Extension Publication. KSU-AgEcon-AE-TG-2016.1 May 2016
21. **Griffin, T.W.**, M.J. Buschermohle, and E.M. Barnes. 2015. Planting and Harvesting Capacity in Cotton Production Estimated from Days Suitable for Field Work. *Cotton Inc.* December 2015.
22. Sharda, A., Slocombe, J.W., **Griffin, T.W.**, and Haag, L. 2015. Understanding Controller Setup for Accurate Liquid Application. Application Technology Series. Kansas State University Agricultural Experiment Station and Cooperative Extension Service.
23. **Griffin, T.W.** and Ibendahl, G. 2015. Do Profitable Farms Remain Profitable? Probability of Switching between Profit Categories. Kansas State University Department of Agricultural Economics Extension Publication. KSU-AgEcon-TG-GI-2015.1.

24. **Griffin, T.W.** 2015. Days Suitable for Fieldwork in Kansas. Kansas State University Department of Agricultural Economics Extension Publication. KSU-AgEcon-TG-2015.1
25. **Griffin, T.W.**, and Taylor, M.R. 2015. Estimating Kansas Farmland Values Based on Historic Index Numbers. K-State Research and Extension AM-TWG-KFV-8.2015. <http://bit.ly/17Likoe>
26. **Griffin, T.W.** 2015. Days Suitable for Planting in Kansas. Kansas State University Department of Agricultural Economics Extension Publication KSU-AgEcon-TG-2015.1 June 5, 2015. <http://www.agmanager.info/KFMA/Newsletters/Research/PlantingDays.pdf>
27. **Griffin, T.W.**, and Taylor, M.R. 2015. Precision Agriculture Data Impact on Farmland Values: Big Data in Ag. K-State Research and Extension AM-TWG-PRAG-4.2015 <http://bit.ly/1F7fHa0>
28. Runge, M., Fulton, J.P., **Griffin, T.W.**, Virk, S. Brook, A. 2014. Automatic Section Control Technology for Row Crop Planters. Alabama Cooperative Extension System. October 2014 ANR-2217 <http://www.aces.edu/pubs/docs/A/ANR-2217/ANR-2217.pdf>
29. Stiles, S., and **Griffin, T.W.** 2010. Estimating Farm Machinery Costs. University of Arkansas Division of Agriculture FSA21. <http://bit.ly/1snQgA7>
  - a. Update of **Griffin, T.W.**, Stiles, S., and Kulkarni, S. 2007. Estimating Farm Machinery Costs. University of Arkansas Division of Agriculture FSA21.
30. **Griffin, T.W.** 2010. Estimating Arkansas Farmland Values Based on Historic Index Numbers. University of Arkansas Division of Agriculture FSA35 <http://bit.ly/ZyEB4S>
31. **Griffin, T.W.** 2010. Arkansas Farm Record Book. University of Arkansas Division of Agriculture MP166
32. **Griffin, T.W.** 2009. Farmers' Use of Yield Monitors. University of Arkansas Division of Agriculture FSA36 <http://bit.ly/1ngiScI>
33. **Griffin, T.W.** 2009. Adoption of Yield Monitor Technology for Crop Production. University of Arkansas Division of Agriculture FSA37 <http://bit.ly/1vXHE2V>
34. **Griffin, T.W.**, Hignight, J., and Jennings, J. 2009. Estimating Haying and Silage Machinery Costs. University of Arkansas Division of Agriculture FSA34. <http://bit.ly/1qzjHIP>
35. **Griffin, T.W.**, & Kelley, J.A. 2010. Days Suitable for Fieldwork in Arkansas. University of Arkansas Division of Agriculture FSA33. <http://bit.ly/1o427Cj>
36. Pendergrass, E.L. & **Griffin, T.W.** 2007. Verbal Farm Leases after the Arkansas Residential Landlord-Tenant Act of 2007. University of Arkansas Division of Agriculture FSA32. <http://bit.ly/1o42fSe>
37. **Griffin, T.W.** 2002. Estimating Illinois Irrigation Costs. July 2002. University of Illinois Extension Farm Business Management and Marketing Fact Sheet.
38. **Griffin, T.W.** 2002. Variable Cash Rent Agreements. January 2002. University of Illinois Extension Farm Business Management and Marketing Fact Sheet.

### Extension White Papers

1. Coble, K., **Griffin, T.W.**, Ahearn, M., Ferrell, S., McFadden, J, Sonka, S., and Fulton, J. 2016. Advancing U.S. Agricultural Competitiveness with Big Data and Agricultural Economic Market Information, Analysis, and Research: Big Data Tailwinds of Future Agricultural Production. Council on Food, Agricultural and Resource Economics (C-FARE) White Paper.
2. Doster, D. H, Dobbins, C.L., **Griffin, T.W.**, & Erickson, B.E. 2010. B-21 Input Form Guidebook. Department of Agricultural Economics, Purdue University. C-EC-11-Rev.
3. **Griffin, T.W.**, Brown, J.P., and Lowenberg-DeBoer, J. 2007. Yield Monitor Data Analysis Protocol: A Primer in the Management and Analysis of Precision Agriculture Data. Site Specific Management Center, Purdue University.
4. **Griffin, T.W.**, Brown, J.P., and Lowenberg-DeBoer, J. 2005. Yield Monitor Data Analysis: Data Acquisition, Management, and Analysis Protocol. Site Specific Management Center, Purdue University.

### Invited Moderator

1. "Farmers who know Precision Ag" Precision Ag Action Summit, Jamestown, ND. January 15, 2018
2. "Agriculture, Food Security & Big Data: Realistic Expectations" International Food and Agricultural Management Association June 16-17, 2015.

3. “*Seward Farm: A Case Study in Data Value and Partnerships*” *Big Data: Understanding and Leveraging the Most Elusive Farm Asset*. February 16, 2015 Columbus, Ohio.

#### Invited Panelist

1. “Big Data Considerations for Agricultural Attorneys” as part of Drone Use, Ag Data Management & Other New Technologies in Agriculture at the American Agricultural Law Association Annual Educational Symposium. Charleston, South Carolina, October 23, 2015
2. “Unlocking the Power of Farm Data for Better Decisions” representing academia. Sponsored by Beck Ag and Farmers Business Network. Teleconference. March 10, 2015; March 17, 2015; March 19, 2015.
3. “Big Data: Cultivating Insight from the Cloud to the Client” at American Society of Agricultural Consultants Annual Conference. October 19-21, 2014 St. Louis, MO. <http://bit.ly/1rfGxKE>
4. “On-farm Research” at the Top Farmer Crop Workshop, July 2011, West Lafayette, IN.
5. "Strategic Partnerships: Program Planning & Grant Writing Across Program Areas", Galaxy Conference, University of Arkansas, Petit Jean, AR, March 2011.
6. “How to maximize yields using precision ag techniques” at the GROWMARK FS GreenPlan Maximizing Yields seminar, February 2011, Peoria, IL.
7. “On-farm Research” at the 2009 InfoAg conference in Springfield, IL
8. “Reach for the Stars” seminar hosted by American Soybean Association/John Deere Ag Management Solutions in Jonesboro, AR January 22, 2008.

#### Invited International Presentations

1. **Griffin, T.W.** 2019. What Kind of Precision Farmer are You? Keynote at Farm Forum Event, Saskatoon, Saskatchewan, Canada, December 3-5, 2019.
2. **Griffin, T.W.** 2019. ROI and Human Face of Precision Technology: Help your clients choose tools that will offer the best return for their investment. Keynote at Farm Forum Event, Saskatoon, Saskatchewan, Canada, December 3-5, 2019.
3. **Griffin, T.W.** 2019. Putting the Data to Work: Quick Wins for Your Farm, Farm Forum Event, Saskatoon, Saskatchewan, Canada, December 3-5, 2019.
4. **Griffin, T.W.** 2019. Valuation of digital agriculture: the winners and losers of farm data. Invited Departmental Seminar, Department of Agricultural and Resource Economics, College of Agriculture and Bioresources, University of Saskatchewan, Saskatoon, Canada December 2, 2019. Canceled plane delay.
5. **Griffin, T.W.** 2019. Big Data Implications for Agriculturists. Agri Analytics Days, Benguerir, Morocco. April 23, 2019.
6. **Griffin, T.W.** 2019. Farm Data Implications for European Farmers. Hungarian Precision Agriculture Conference. Budapest, Hungary. February 20, 2019.
7. **Griffin, T.W.** 2019. Adoption and Utilization of Digital Agriculture at the Farm Level. Hungarian Precision Agriculture Conference. Budapest, Hungary. February 19, 2019.
8. **Griffin, T.W.** 2018. Digital Technology in Agriculture: “When I’m 30 in 2030”. Longerenong College, Longerenong, Victoria, Australia. August 13, 2018.
9. **Griffin, T.W.** 2018. Connectivity, Capability and Trust: Breaking down barriers for farming to create value from data sets. **veski** Sustainable Agriculture Innovation Update. Melbourne, Victoria, Australia. August 9, 2018.
10. **Griffin, T.W.** 2018 Big Data in Agriculture: A Farm Management Economist’s Perspective. Agricultural and Resource Economics and the AARES, Western Australia Branch, seminar series, University of Western Australia Faculty of Science School of Agriculture and Environment. Perth, Western Australia, Australia, July 25, 2018.
11. **Griffin, T.W.** 2018. Collating & analysing small data to make big decisions. Can it improve farm productivity & profitability? GRDC Updates, Bendigo, Victoria, Australia February 27, 2018
12. **Griffin, T.W.** 2018. Opportunities in Digital Agriculture: Small to Big Data. CeDRI at Federation University, Ballarat, Victoria, Australia March 1, 2018
13. **Griffin, T.W.** 2018. Small data for making big decisions: Spatial statistics in agronomy. Agriculture Victoria in Horsham, Victoria, Australia. March 2, 2018

14. **Griffin, T.W. 2018.** Finding Value from On-Farm Data. Birchip Cropping Group, Birchip, Victoria, Australia. March 5, 2018
15. **Griffin, T.W. 2018.** Economics of Farm Data Network: Today and Tomorrow. AgriBio at La Trobe University, Melbourne, Victoria, Australia. March 9, 2018.
16. **Griffin, T.W. 2018.** Thinking about Farm Data Communities: Today and Tomorrow. CSIRO and Curtin University, Perth, Western Australia, Australia. March 13, 2018
17. **Griffin, T.W. 2018.** Big Ag Data: From Academic Models to Commercialization. Sydney University, Sydney, New South Wales, Australia. March 15, 2018.
18. **Griffin, T.W. 2018.** Value of Farm Data: Who are the Real Winners? CropConnect in Winnipeg, Canada February 14, 2018
19. **Griffin, T.W. 2017.** The Profitability of Precision Ag in Times of Increased Financial Vulnerability, Eastern Ontario Crop Conference, Kemptville, ON February 14, 2017
20. **Griffin, T.W. 2017.** Big Data Implications for Agriculture, Eastern Ontario Crop Conference, Kemptville, ON February 14, 2017
21. **Griffin, T.W. 2012.** Applied Spatial Econometrics. Precision Ag 2.0 The Next Generation. February 22-23, 2012 Calgary, AB, Canada.
22. **Griffin, T.W. 2011.** Making the Most of Spatial Technologies: Use and economics of technologies such as GPS-enabled guidance systems. Eastern Ontario Crop Conference 2011

#### **Invited Out-of-state Presentations**

1. **Griffin, T.W. 2019.** Dispelling Common Myths of Precision Ag. Repeated twice at Farm Journal AgTech Expo, Indianapolis Indiana December 16-17, 2019.
2. **Griffin, T.W. 2019.** Blockchain: The Big Picture and the Nitty Gritty. Farm Journal AgTech Expo, Indianapolis Indiana December 16-17, 2019.
3. **Griffin, T.W. 2019.** Value of farm data within & beyond farmgate: Who should invest in ag technology? 2019 Alabama Precision Agriculture Workshop: Technological Innovations for Sustainable and Profitable Agriculture in the Southeast, Birmingham Botanical Gardens, Birmingham, AL July 30, 2019.
4. **Griffin, T.W. 2019.** 10 Questions before Precision Purchase: Sniffing out Digital Snake Oil. InfoAg, St. Louis Missouri July 23-25, 2019.
5. **Griffin, T.W. 2019.** How quickly do farmers adopt technology? A duration analysis. Departmental Seminar, Department of Agricultural Economics, Oklahoma State University. Stillwater, Oklahoma. April 19, 2019.
6. **Griffin, T.W. 2019.** Technology, Economics, and Sustainability: 4R Nutrient Stewardship and Soil Health Work Together. Commodity Classic. Orlando, Florida. February 28, 2019.
7. **Griffin, T.W. 2019.** Making the most of farm data within the farm gates and beyond. Digital Agriculture Conference. Alexandria Louisiana. January 29, 2019.
8. **Griffin, T.W. 2019.** Big Data Implications for Cooperative Extension Agents. Digital Agriculture for North Carolina State University Extension Agents. Raleigh, NC. January 16, 2019.
9. **Griffin, T.W. 2018.** Know the Value of Farm Data... Today and Tomorrow. Farm Journal AgTech Expo, Indianapolis Indiana December 3-5, 2018.
10. **Griffin, T.W. 2018.** Lessons Learned from Litigating Farm Data Issues. Farm Journal AgTech Expo, Indianapolis Indiana December 3-5, 2018.
11. **Griffin, T.W. 2018.** Evolution or Revolution: Digital (Precision) Agriculture & Farm Data. Keynote at Free & Open Source Software Conference FOSS4AG St. Louis, MO May 17, 2018.
12. **Griffin, T.W. 2018.** Recent Trends in Precision Ag Adoption & Industry Developments. USDA-ERS, Washington, DC. June 7, 2018
13. **Griffin, T.W. and Ferrell, S.L. 2018.** Precision Ag Technology: From Small Data to Big Ag Data. Panhandle Crop School. Guymon, OK. April 4, 2018.
14. **Griffin, T.W. 2018.** Big Data and Investments in On-Farm Technology for Improved Sorghum Performance. Sorghum Improvement Conference of North America. St. Louis, MO, January 30, 2018
15. **Griffin, T.W. 2018.** Big Data Implications for Crop Advisors: Helping Growers Navigate the Hype. Northwest Missouri Certified Crop Advisors, St. Joseph, MO January 16, 2018

16. **Griffin, T.W.** 2018. The Evolution of a Revolution: Past, Present, & Future of Precision Ag. Keynote at Precision Ag Action Summit, Jamestown, ND, January 15, 2018
17. **Griffin, T.W.** 2018. Big Data Implications for Agriculture, Wisconsin Agribusiness Classic, Madison, WI January 11, 2018
18. **Griffin, T.W.** 2017. What's Your Data Worth to You? To Others? How to Benefit Without Getting Ripped Off. Farm Journal AgTech Expo, Indianapolis Indiana December 12, 2017
19. **Griffin, T.W.** 2017. In Search of Optimal On-the-go Nitrogen Application Rates for Cotton, Nitrogen Use Efficiency Conference, Baton Rouge, LA August 8-9, 2017
20. **Griffin, T.W.** Big or Small Farm Data: Future of Precision Ag, University of Missouri, Columbia, MO, via Skype February 24, 2017
21. **Griffin, T.W.** 2017. Big Data vs Small Data: Future of Precision Ag, 1st Annual Corn College, Wray, Colorado February 20, 2017
22. **Griffin, T.W.** 2017. Big Data Implications for Agronomists: Helping Growers Navigate the Hype, GROWMARK Advanced Agronomy Day, Bloomington, IL, January 25, 2017
23. **Griffin, T.W.** 2017. Precision Agriculture: Data Privacy of Small and Big Data. North Dakota State University Agricultural and Biological Engineering Department. Fargo, ND. January 18, 2017.
24. **Griffin, T.W.** 2017. Ag Tech Causing Concern: From Small Data to Big Data. 6<sup>th</sup> Precision Ag Summit, Jamestown, ND. January 17, 2017
25. **Griffin, T.W.** 2017. The Profitability of Precision Ag in Times of Increased Financial Vulnerability 6<sup>th</sup> Precision Ag Summit, Jamestown, ND. January 16, 2017
26. **Griffin, T.W.** 2016. Mine the Data Not the Soil: Big Data Considerations for Soil Fertility. North Central Extension-Industry Soil Fertility Conference November 2-3, 2016, Des Moines, IA
27. **Griffin, T.W.** Big Data Implications for Precision Agriculture. CyberGIS Center for Advanced Digital and Spatial Studies, University of Illinois, Urbana, Illinois. June 3, 2016
28. **Griffin, T.W.** Big Data Implications for Corn Farmers. Illinois Corn Board & Illinois Marketing Board. Bloomington, Illinois. June 2, 2016
29. Ferrell, S.L. and **Griffin, T.W.** Big Data in Agriculture: Issues in Risk Management Education 2016 RME Conference Fort Worth, Texas – April 27<sup>th</sup>, 2016
30. **Griffin, T.W.** Economics of Big Data and Technology. No-till Oklahoma Conference Norman, Oklahoma March 1, 2016
31. **Griffin, T.W.** Big Data Implications for Precision Agriculture. United Soybean Board. Tampa, Florida February 18, 2016
32. **Griffin, T.W.** Making the Most of Precision Ag Technology: Big Data Implications for Farmers. 107<sup>th</sup> Northwest Farm Managers Association. Fargo, ND. February 17, 2016.
33. **Griffin, T.W.** Precision Ag Big Data: Managing Your Most Elusive Farm Asset. 5<sup>th</sup> Annual Precision Ag Summit. Jamestown, ND. January 19, 2016
34. **Griffin, T.W.** Big Data Implications for Crop Insurance Agents. 23<sup>rd</sup> Annual Crop Insurance Conference. Fargo, ND January 18, 2016.
35. **Griffin, T.W.** Big Data Implications for Agricultural Leadership. Agricultural Leadership of Oklahoma Christmas Dinner, Stillwater, Oklahoma December 5, 2015
36. **Griffin, T.W.** Data Overload - Helping Growers Manage Data. Illinois CCA Conference. Springfield, Illinois December 2, 2015
37. **Griffin, T.W.** How Crop Insurance Will Use Technology and Big Data. Risk Management Decision for Tomorrow. 2015 Crop Insurance Workshop.
  - a. Brush, CO with Brent Young November 10, 2015
  - b. Grand Island, NE November 11, 2015
  - c. Enid OK November 13, 2015
38. **Griffin, T.W.** and Ferrell, Shannon. Big Data – Big Value? The Economics of Farm Data and Precision Technologies. Heritage Implement. Kansas City, MO. August 20, 2015.
39. **Griffin, T.W.** Impacts of farming big data for society, farmers, and research. Soil Big Data Canberra, Australia. June 25, 2015. #soilbigdata2015
40. **Griffin, T.W.** Big Data in Agriculture. 2015 Virginia Grains and Soybean Annual Conference. Williamsburg, Virginia. February 17, 2015 (presentation cancelled due to weather related travel delays)

41. **Griffin, T.W.** A Data-Driven Future: Driving Decisions beyond the Field. *Big Data: Understanding and Leveraging the Most Elusive Farm Asset*. Columbus, Ohio. February 16, 2015
42. **Griffin, T.W.** Big Data: Capturing Value from Precision Data. Cotton Inc. Crop Management Seminar, Tifton, GA. November 12-13, 2014
43. **Griffin, T.W.** Making the Most of Precision Ag: On-Farm Experiments. Kansas Ag Research and Technology Association, January 23-24, 2014, Salinas, KS.
44. **Griffin, T.W.** Farm Data Participation and Privacy: From the Farm Gate to Open Source. Keynote at Kansas Ag Research and Technology Association, January 23-24, 2014, Salinas, KS.
45. **Griffin, T.W.** Precision Agriculture and Data Privacy. American Farm Bureau Outlook Conference, Reno, NV, October 2014.
46. **Griffin, T.W.** Advantages of Aggregating Data. InfoAg2013, Springfield, IL July 16, 2013
47. **Griffin, T.W.** Making the Most of Precision Ag: I have all this data - now what? AG CONNECT, Kansas City, MO January 29-31, 2013
48. **Griffin, T.W.** Making the Most of Precision Ag: I have all this data - now what? iGrow Western Corn Belt – Precision Agriculture Conference, Sioux Falls, SD - March 13, 2013
49. **Griffin, T.W.** Advanced GIS Analysis & Spatial Statistics: Beyond Map-ematical Assessments. ESRI Commercial User Meeting - St. Louis, November 8, 2012
50. **Griffin, T.W.** Comprehensive Precision Agriculture Systems. Conservation in Action Tour – Mississippi Delta. Clarksdale, MS. May 30-31, 2012.
51. **Griffin, T.W.** Making the Most of Precision Agriculture Data: Big Data in Farm Management. Practitioners' AtoZ Track at 11<sup>th</sup> International Conference on Precision Agriculture, Indianapolis, IN July 2012.
52. **Griffin, T.W.** Precision Agriculture Profitability beyond Pretty Maps: Facts vs. Myths. 2012 National Conservation Systems Cotton and Rice Conference, Tunica, MS. January 2012.
53. **Griffin, T.W.** The Economics of Precision Agriculture: Beyond “Pretty Maps”. Keynote at Precision Agriculture Action Summit 2012, Jamestown, ND, January 2012.
54. **Griffin, T.W.** Better On-Farm Decisions through the use of Web-based Spatial Analysis. AgGateway, Las Vegas, NV, November 8, 2011.
55. **Griffin, T.W.** Precision Agriculture Adoption and Profitability: Fact vs. Myth beyond Pretty Maps. InfoAg Conference, Springfield, IL, July 2011.
56. **Griffin, T.W.** Conducting On-Farm Experiments: Making the Most of Precision Agriculture Technologies. Cotton and Rice Conservation Tillage Conference, Tunica, MS, February 2010.
57. **Griffin, T.W.** Economics of Variable Rate Application & Other Precision Ag Practices. 2009 Precision Ag and Field Crops Conference Atmore, AL, December 8, 2009
58. **Griffin, T.W.** Trends in Farmland Values and Rents. Managers Session of the Mid-South Chapter of the American Society of Farm Managers and Rural Appraisers. Tunica, MS. August 2009.
59. **Griffin, T.W.** Assessing Farmland Investment Suitability through Analyzing Values and Rents. Managers Session of the Mid-South Chapter of the American Society of Farm Managers and Rural Appraisers. Tunica, MS. August 2010.
60. **Griffin, T.W.** Trends in Farmland Values and Rents. Mid-South Chapter of the American Society of Farm Managers and Rural Appraisers Annual Summer Meeting, Tunica, MS. August 2009.
61. **Griffin, T.W.** Software for Delineating Zones: Management Zone Analyst. Beltwide Cotton Conference to the Cotton Consultants Meeting in San Antonio, TX in January 2009.
62. **Griffin, T.W.** Precision Agriculture Software for Consultants. Beltwide Cotton Conference to the Cotton Consultants Meeting in San Antonio, TX in January 2009.
63. **Griffin, T.W.** Making the Most of Precision Agriculture: Issues to consider for GPS and GIS adoption. Cotton and Rice Conservation Tillage Conference in Marksville, LA in January 2009.
64. **Griffin, T.W.** Conducting On-Farm Experiments: Making the Most of Spatial Technologies. 2009 InfoAg Conference, Springfield, IL July 2009.
65. **Griffin, T.W.** Making the Most of Precision Agriculture Technologies. Mid-Atlantic Crop Management Conference, Ocean City MD, November 2009.
66. **Griffin, T.W.** Whole-farm Benefits of GPS-enabled Navigation Technologies. Top Farmer Crop Workshop at Purdue University, West Lafayette, IN, July 2009.



67. **Griffin, T.W.** Need for Spatial Analysis in On-Farm Research. Top Farmer Crop Workshop at Purdue University, West Lafayette, IN July 2007 to 120 farmers.
68. **Griffin, T.W.** On-Farm Research: Need for Spatial Analysis. InfoAg Midsouth February 7-8, 2007 Starkville, MS.
69. **Griffin, T.W.** Collecting and Analyzing Data. Oklahoma State University Partners in Research Workshop January 31, 2007 at Northeastern State University, Broken Arrow, OK to 45 farmers.
70. **Griffin, T.W.** Making the Most of Yield Monitor Data for On-farm Trials. Indiana CCA Conference, Indianapolis, IN, December 19-20, 2006.
71. **Griffin, T.W.** Using precision technology for on farm trials. Cotton Inc. Precision Cotton Workshop November 2, 2006 in Memphis, TN.
72. **Griffin, T.W.** On-farm Research with GPS: Making the most of on-farm trials. Illinois GPS Workshop June 23, 2006 at the Interstate Center in Bloomington, IL.
73. **Griffin, T.W.** Precision Farming Technologies. Keynote Address at the Illinois GPS Workshop June 23, 2006 at the Interstate Center in Bloomington, IL.
74. **Griffin, T.W.** New Methods in On-Farm Research. Keynote at MapShots 2006 Customer Conference. Indianapolis, IN. January 19, 2006.
75. **Griffin, T.W.** Program Development: In-Service Precision Agriculture Training. Search for Excellence Seminar on Remote Sensing and Precision Agriculture at the 88<sup>th</sup> Annual Meeting and Professional Improvement Conference of the National Association of County Agricultural Agents, Green Bay, WI, July 13-17, 2003.

#### **Extension Presentations – In-state (Kansas 2015 to present, Arkansas 2006-2012)**

1. **Griffin, T.W.** 2019. Yield Data. KSRE and USDA NRCS in-service training. McPherson, KS. November 19-20, 2019.
2. **Griffin, T.W.** 2019. Dispelling Ag Technology Myths. Risk and Profit Conference, Kansas State University, Manhattan, KS, August 22-23, 2019.
3. **Griffin, T.W.** 2019. Putting the Ol' Block-n-chain to Work. High Plains Journal Sorghum U and Wheat U, Mulvane, Kansas August 14, 2019.
4. **Ibendhal, G. and Griffin, T.W.** 2019. What Makes a Top Farm?. Kansas Farm Management Association. May 6, 2019.
5. **Griffin, T.W.** 2019. Adoption and Economics of Precision Agriculture. Kansas Society of Farm Managers and Rural Appraisers 56th Annual Winter Meeting February 22, 2019 Manhattan, Kansas.
6. **Griffin, T.W.** 2019. Precision agriculture and farm management. Experiment Field Crop Update. Kaw Valley Irrigation Association. February 6, 2019. Topeka, Kansas.
7. **Herbel, K. and Griffin, T.W.** 2019. Agricultural Technology in Kansas. Annual Agricultural Technology Conference. Kansas Ag Research and Technology Association. January 17, 2019. Junction City, Kansas.
8. **Griffin, T.W.** 2018. Making the most of agricultural technology. LandMark John Deere. Smith Center, Kansas. December 13, 2018.
9. **Griffin, T.W.** 2018. Precision Agriculture Workshop. Parsons, Kansas. November 27, 2018.
10. **Carls, E., Ibendahl, G., and Griffin, T.W.** Farm Profitability Indicators. Risk and Profit. August 2018.
11. **Carls, E., and Cullop, J., and Griffin, T.W.** Soybean Economics, Decision Making, & Farm Data. Summer Soybean Institute Manhattan KS June 14, 2018
12. **Griffin, T.W.** 2018. Precision Ag Technology: From Small Data to Big Ag Data. Red Barn Enterprises. Leoti, KS.
13. **Griffin, T.W.** 2018. What All Agriculturalists Need to Know about Farm Data. Women Managing the Farm, Manhattan, KS, February 16, 2018
14. **Griffin, T.W.** 2018. Machinery Management Tools for Sorghum: Crop Progress and Fieldwork Probability, Kansas Sorghum Schools, Washington, KS February 8, 2018
15. **Griffin, T.W.** 2018. Big Data Implications for Growers, Dicamba & Big Data, Nortonville, KS, February 7, 2018
16. **Griffin, T.W.** 2018. Timeline of Precision Ag Technology Adoption. Kansas Ag Technologies Annual Conference aka KARTA. Junction City, Kansas.

17. **Griffin, T.W.** 2018. Machinery Management Tools for Corn: Crop Progress and Fieldwork. Kansas Corn Schools. Garden City, KS January 9, 2018
18. **Griffin, T.W.** 2017. Successful Utilization of Precision Soil Sampling & Variable Rate Fertilizer in Kansas. KARA CEU Bonus Session Hays, KS December 7, 2017
19. **Griffin, T.W.** 2017. Kansas Farmers' Adoption of Precision Agriculture Technology, Rio Seco group of Argentine Farmers, Manhattan, KS 12 September 2017
20. Stabel, J. and **Griffin, T.W.** Estimating Farm Financial Stability and Characteristic Analysis. KSU Risk & Profit Conference, Manhattan, KS August 17-18, 2017
21. **Griffin, T.W.** 2017. Precision Agriculture Profitability. KSU Risk & Profit Conference, Manhattan, KS August 17-18, 2017
22. **Griffin, T.W.** 2017. Yield data and the impact it can have on a farm. LandMark Implement Combine Clinic, Marysville, KS, August 7, 2017
23. **Griffin, T.W.** Soybean Economics, Decision Making, & Farm Data. Summer Soybean Institute Manhattan KS June 14, 2017
24. **Griffin, T.W.**, Sharda, A., and Haag, L. Yield Monitor Data Workshop. Kansas Ag Research and Technology Association. Goodland, Kansas. March 3, 2017. 9 people.
25. **Griffin, T.W.** 2017. Precision Ag and Big Data. PrecisionAg Workshop. Great Bend, Kansas. February 9, 2017. 33 people
26. **Griffin, T.W.** 2017. Precision Ag and Big Data. PrecisionAg Workshop. Beloit, Kansas. February 10, 2017. 45 people
27. Ferrell, S. and **Griffin, T.W.** 2017. Big Data Implications for Precision Agriculture. 20th Kansas Ag Technologies Conference, Junction City, Kansas – January 19, 2017
28. **Griffin, T.W.** 2017. Usable Corn Condition Progress Tools. Corn School. Oakley, Kansas. January 11, 2017. 87 people.
29. **Griffin, T.W.** 2017. Usable Corn Condition Progress Tools. Corn School. Olathe, Kansas. January 13, 2017. 95 people.
30. **Griffin, T.W.** Precision Ag Update. Rapid Fire KSU update. Kansas Ag Research and Technology Association Annual Conference. Junction City, Kansas. 145 people. January 20, 2017
31. **Griffin, T.W.** and Ferrell, S.L. 2017. Economic and Legal Aspects of Precision Ag and Big Data. Kansas Ag Research and Technology Association Annual Conference. Junction City, Kansas. 138 people. January 19, 2017
32. **Griffin, T.W.** 2017. Precision Ag & Variable Rate Fertility Profitability: Big Data in Times of Increased Financial Vulnerability Kansas Ag Retail Association (KARA) Crop Production Update, Junction City, KS January 5, 2017
33. **Griffin, T.W.** 2016. Big Data. KARA Kansas Ag Retailers Bonus CEU Session, Salina, KS, December 1, 2016
34. **Griffin, T.W.** 2016. Adoption of Variable Rate Seeding. Planter Workshop. (KARTA) and Kansas State University, Manhattan, Kansas. October 26-27, 2016. 27 people.
35. **Griffin, T.W.**, Stabel, J., Ibendahl, G. 2016. Factors Influencing Farms Transitioning Between Financial Vulnerability Categories. K-State Ag Lenders Conference. Garden City, Kansas and Manhattan, Kansas. October 4-5, 2016
36. **Griffin, T.W.**, Stabel, J., Ibendahl, G. 2016. Factors Influencing Farms Transitioning Between Financial Vulnerability Categories. K-State Ag Lenders Conference. Garden City, KS, October 4, 2016 and Manhattan, KS, October 5, 2016
37. **Griffin, T.W.** Decision Making: Kansas Wheat presented to King Arthur Wheat delegation. Manhattan, KS. September 19, 2016
38. **Griffin, T.W.** and Miller, N.J. Adoption and Utilization of Precision Agricultural Technology. Risk and Profit Conference, Department of Agricultural Economics, Kansas State University, Manhattan, KS. August 18-19, 2016.
39. **Griffin, T.W.** Yield Monitor Data Analysis. Yield Monitor School. Manhattan, KS August 16, 2016.
40. **Griffin, T.W.** Soybean Economics, Decision Making, & Farm Data. Summer Soybean Institute Manhattan KS June 1, 2016

41. **Griffin, T.W.** Big Data and Precision Agriculture. Agri-Business Council of Wichita. Wichita, KS. May 13, 2016
42. **Griffin, T.W.** Big Data Implications in Agriculture, Hays, KS, March 4, 2016
43. **Griffin, T.W.** Big Data Implications for Farmers, Herrington, KS. Agriculture Technology Day February 11, 2016
44. **Griffin, T.W.** Big Data in Agriculture. Kansas Sorghum Schools. Ellsworth, KS. February 4, 2016.
45. **Griffin, T.W.** Leveraging Precision Ag & Big Data. AgRisk Solutions 2016 Risk & Financial Management Conference “*Empowering Producers with Skills & Knowledge*” Manhattan, Kansas February 2-3, 2016
46. **Griffin, T.W.** Big Data for Farmers: Data Privacy. Ag Technology. Gray County, Cimarron, KS. February 1, 2016.
47. **Griffin, T.W.** Leveraging Precision Ag & Big Data. AgRisk Solutions and Landmark Bank. Iola, KS January 28, 2016
48. **Griffin, T.W.** Precision Ag & Big Data. Kansas Soybean Schools, Great Bend, KS January 25, 2016
49. **Griffin, T.W.** Precision Ag & Big Data. Kansas Soybean Schools, Great Bend, KS Overbrook, KS January 26, 2016,
50. **Griffin, T.W.** Precision Ag & Big Data. Kansas Soybean Schools, Great Bend, KS Marysville, KS January 29, 2016
51. **Griffin, T.W.** Precision Ag & Big Data: Data Repositories. Kansas Farm Bureau Ag Technology Committee. Manhattan, KS January 20, 2016
52. **Griffin, T.W.** Making Use of Precision Ag. Coffee Shop Agronomy. Riley County. Leonardville, KS January 14, 2016
53. **Griffin, T.W.** Precision Agriculture and Big Data Issues for Crop Consultants. Crop Production Update. Kansas Ag Retailer’s Association. Junction City, KS January 13, 2016
54. **Griffin, T.W.** Suitable Planting & Harvesting Dates Tool for Corn. Corn Schools. Independence, KS January 11, 2016
55. **Griffin, T.W.** Suitable Planting & Harvesting Dates Tool for Corn. Corn Schools. Salina, KS January 15, 2016
56. **Griffin, T.W.** Precision Ag and Big Data. Ag Profitability Conference, Colby, KS January 6, 2016
57. **Griffin, T.W.** Big Data and Precision Ag. Wildcat Agronomy Night, Independence, KS December 17, 2015
58. **Griffin, T.W.** Variable Rate Fertilizer: Big Data Concerns for Nutrient Management. Kansas Agricultural Retailers Association (KARA) CEU Bonus Session. Salina, Kansas December 3, 2015
59. **Griffin, T.W.** How Crop Insurance Will Use Technology and Big Data. Risk Management Decision for Tomorrow. 2015 Crop Insurance Workshop. Salina, KS November 12, 2015
60. **Griffin, T.W.** Data Layers and Precision Ag Management. As part of mini-research symposium on New Precision Technologies for Ag Decision Making: Addressing the Challenges and Limitations at K-State Extension Annual Conference. Manhattan, Kansas. October 21, 2015
61. **Griffin, T.W.** Update on Precision Agriculture Technology and Data Use. K-State Ag Lenders Conference. Garden City, Kansas and Manhattan, Kansas. September 29-30, 2015
62. **Griffin, T.W.** Putting Big Data to Work in Agribusiness. 2015. Kansas State University Masters of Agribusiness Alumni Conference, Manhattan, KS. September 17-18, 2015.
63. **Griffin, T.W.** 2015 Kansas Weather Compared to Long Term Trends for Fieldwork Probabilities. Risk and Profit Conference, Department of Agricultural Economics, Kansas State University, Manhattan, KS. August 20-21, 2015.
64. **Griffin, T.W.** Making the Most of Precision Ag Technology and Big Data. Risk and Profit Conference, Department of Agricultural Economics, Kansas State University, Manhattan, KS. August 20-21, 2015.
65. **Ibendahl, G., and T. W. Griffin.** 2015. “An Examination of Machinery Costs and Machinery Investment in Kansas.” Risk and Profit Conference, Department of Agricultural Economics, Kansas State University, Manhattan, KS. August 20-21, 2015.
66. Precision Ag: GIS from the Field to the Decision Maker, Arkansas GIS Users, Little Rock, AR, March 26, 2014

67. Big Data on the Farm: Issues and Privacy. Arkansas Farm Bureau Young Farmers and Ranchers Annual Meeting February 22, 2014
68. Utilizing Crop Yield Mapping to Make Management Decisions. Arkansas Crop Management Conference, North Little Rock, AR, January 22-24, 2013
69. Sampling Methods and Interpolation. Mid-South Crop Consultants Annual Meeting, Jonesboro, AR November 2011.
70. Geospatial Technologies and Quality of Life. Precision Agriculture Workshop, Hattiesburg, MS, March 11, 2011.
71. Making the Most of Spatial Technologies with On-Farm Research. Precision Agriculture Workshop, Hattiesburg, MS, March 11, 2011.
72. All this Data, Now What? Precision Agriculture Workshop, Hattiesburg, MS, March 11, 2011.
73. Making the Most of Spatial Technologies to Manage Water Issues. Cotton and Rice Conservation Tillage Conference in Baton Rouge, LA, January 2011.
74. Assessing Farmland Investment Suitability through Analyzing Values and Rents. National Land Conference, REALTORS Land Institute, Dallas, TX, April 2010.
75. Yield Potential by Planting Dates for Rice-soybean Farms: Managing for Whole-farm Profitability. Rice Research and Extension Center Field Day, Stuttgart, AR, August 2010.
76. Making the Most of Precision Agriculture Technologies. Arkansas Farm Bureau Young Farmers and Ranchers Annual Meeting, Little Rock, AR, August 2010.
77. Making the Most of Precision Agriculture Technologies. Guatemalan Delegation, Little Rock, AR, May, 2010.
78. Impact of Herbicide Resistance on Conservation Tillage: A Whole-farm Perspective. 2010 Arkansas Crop Management Conference, Agricultural Business Session, North Little Rock, AR.
79. Delivering Solutions for Agriculture and Natural Resources through Geospatial Technologies. Arkansas GIS Annual Meeting, Little Rock, AR.
80. Budget Update and Farm Management Issues. St. Francis & Monroe Counties. February 17, 2010.
81. Making the Most of Precision Agriculture: Issues to consider for GPS and GIS adoption. Arkansas County in Stuttgart, AR, February 2009.
82. Making the Most of Precision Agriculture Technology. Annual Meeting of Arkansas Women in Agriculture, North Little Rock, AR.
83. Arkansas Dairies and Profitability. Dairy Producer Meeting in Rosebud, AR
84. Making the Most of Precision Agriculture Technology. Arkansas Women in Agriculture Conference in North Little Rock, AR.
85. ARMS Data: My Perspective as a Local Data User. USDA-NASS ARMS Enumerator Training in Little Rock, AR.
86. On-board Module Builder Cotton Pickers: Preliminary Economic Analysis. 2007 Farm Management Regional Meetings in Dumas and Keiser, AR.
87. Economics of GPS Lightbar and Automated Guidance. 2007 Farm Management Regional Meetings in Forrest City, Stuttgart, and Newport, AR.
88. Federal Crop Insurance Program and Arkansas Trends. 2007 Rice Research and Extension Center field day in Stuttgart, AR.
89. Making the Most of Spatially Dependent Data. Advanced Center for Management, Innovation, and Technology for Agriculture from University Federico Santa Maria, Santiago, Chile, Site-Specific Management Center at Purdue University October 12-13, 2006.
90. Decision-Making from On-Farm Experiments: Spatial Analysis of Precision Agriculture Data. Danish Agricultural Delegation to Purdue University, West Lafayette, IN.
91. Yield Monitor Data Analysis Start-up Session, with Jess Lowenberg-DeBoer. Top Farmer Crop Workshop, Purdue University, West Lafayette, IN. July 16, 2006
92. Top Farmer B-21 Base Case: Intensive Soybean Management & Adjusting Seeding Rates with Shawn Conley. Top Farmer Crop Workshop, Purdue University, West Lafayette, IN. July 16, 2006
93. On-Farm Experimentation: Making the most out of your planned comparisons for improved crop management. April 2005 at Starr Farm, Connersville, IN.

94. Whole-farm planning with continuous corn scenarios. Top Farmer Crop Workshop July 17, 2005 at Purdue University, West Lafayette, IN.
95. Using Yield Monitor Analysis to Refine Nitrogen Application Decision Making. Top Farmer Crop Workshop July 2005, Purdue University, West Lafayette, IN.
96. How to make the most of your on-farm trials with yield monitor data. Top Farmer Crop Workshop July 2005, Purdue University, West Lafayette, IN.
97. Making the Most of Yield Monitor Data. Cazenave & Associates, Argentina August 2005, Purdue University, West Lafayette, IN.
98. Whole-farm planning with GPS navigation technologies. Top Farmer Crop Workshop July 2004, Purdue University, West Lafayette, IN.
99. Illinois Farmland Leasing Trends for Irrigation. 2003 Illinois Specialty Crop Conference, Springfield, IL, January 22-23, 2003.
100. Central Illinois Irrigation Issues. 2002 Illinois Land and Water Resources Conference. July 29-31, 2002. Springfield, Illinois.
101. Survey of Eastern Arkansas. Arkansas Crop Management Conference with Popp, J.S. February 7-10, 2000. Little Rock, Arkansas.

### Extension Workshops

1. Precision Ag Data Analysis: Cleaning Yield Monitor Data. Co-sponsored by Kansas Agricultural Research and Technology Association (KARTA) and Kansas State Research and Extension (KSRE). Co-taught with Lucas Haag (KSRE) and Tyler Rider (KARTA).
  - a. Great Bend, KS November 9, 2015
  - b. Clay Center, KS February 12, 2016
  - c. Goodland, KS March 3, 2017
2. Spray Application Workshop with Ajay Sharda, Manhattan, KS November 17, 2017.
3. Imaging Workshop co-sponsored by Kansas Agricultural Research and Technology Association, Great Bend, KS November 2017

### Blogs and Short Articles

1. **Griffin, T.W.** and Mark, T.B. 2019. Lessons Learned from Serving as Expert Witness, blog posted November 11, 2019. <https://www.spaceplowboy.com/post/lessons-learned-from-serving-as-expert-witness>
2. **Griffin, T.W.** 2019. A "briefer" history of farm management, blog posted September 4, 2019. <https://www.spaceplowboy.com/post/a-briefer-history-of-farm-management>
3. **Griffin, T.W.** 2019. Wheat From The Chaff: Distinguishing Valid Farm Data Services, posted to AgProfessional.com August 29, 2019 <https://www.agprofessional.com/article/wheat-chaff-distinguishing-valid-farm-data-services>
4. **Griffin, T.W.** 2019. What do farmers give up to observe the sabbath? blog posted August 20, 2019 <https://www.spaceplowboy.com/post/what-do-farmers-give-up-to-observe-the-sabbath>
5. Harris, K.D. and **Griffin, T.W.** 2019. How Blockchain Would Work in the Grain Industry, PrecisionAg Institute posted August 1, 2019. <https://www.precisionag.com/farm-to-fork/how-blockchain-would-work-in-the-grain-industry/>
6. **Griffin, T.W.**, Harris, K.D. and Ward, J.K. 2019. Enhancing Farm Data Value with Blockchain, PrecisionAg Institute posted July 17, 2019 <https://www.precisionag.com/digital-farming/data-management/enhancing-farm-data-value-with-blockchain/>
7. **Griffin, T.W.** 2019. Value of AgTwitter to Extension Programming, posted June 27, 2019. <https://www.spaceplowboy.com/post/value-of-agtwitter-to-extension-programming>
8. **Griffin, T.W.** 2019. Trying Github, posted April 1, 2019. <https://www.spaceplowboy.com/post/trying-github>

**Radio and Podcasts (\* denotes not KSRE Radio)**

1. **Griffin, T.W.** 2019. Trends in Farm Management Research, KSRN RADIO INTERVIEWS December 13, 2019 <https://agmanager.info/news/trends-farm-management-research>
2. \***Griffin, T.W.** et al. 2019. Recap of Farm Forum Event posted Between the Rows December 5, 2019 <https://play.google.com/music/m/Daztoxvh24yhgagddj4vlnqmnkq?t=Myth-busting-precision-ag-farming-less-to-make-more-habitats-for-predators-profiting-with-precision>
3. **Griffin, T.W.** 2019. Precision Agriculture Recap, KSRN RADIO INTERVIEWS November 14, 2019. <https://agmanager.info/news/precision-agriculture-recap>
4. Ibendahl, G., and **Griffin, T.W.** 2019. Creating a Top Farm, KSRN RADIO INTERVIEWS October 8, 2019 <https://agmanager.info/news/creating-top-farm>
5. \***Griffin, T.W.** 2019. Harvest Tips to Get the Most from Your Field Data (Season 1, Episode 8) The Digital Acre posted August 15, 2019. <https://podcasts.apple.com/ca/podcast/harvest-tips-to-get-most-from-your-field-data-season/id1450282186?i=1000446970301>
6. Ibendahl, G., and **Griffin, T.W.** 2019. Generations, Spending and Debt, KSRN RADIO INTERVIEWS August 14, 2019 <https://agmanager.info/news/generations-spending-and-debt>
7. **Griffin, T.W.** and Shanoyan, A. 2019. Generations and Precision Cropping, KSRN RADIO INTERVIEWS June 25, 2019 <https://agmanager.info/news/generations-and-precision-cropping>
8. **Griffin, T.W.** and Yeager, E.A. 2019. The Age Demographics of Kansas Farms, KSRN RADIO INTERVIEWS June 24, 2019 <https://agmanager.info/news/age-demographics-kansas-farms>
9. **Griffin, T.W.** and Ibendahl, G. 2019. Kansas Farm Operations - The Generations, KSRN RADIO INTERVIEWS June 20, 2019 <https://agmanager.info/news/kansas-farm-operations-generations>
10. Ibendahl, G., and **Griffin, T.W.** 2019. Top Economic Performers, KSRN RADIO INTERVIEWS March 27, 2019 <https://agmanager.info/news/top-economic-performers>
11. \***Griffin, T.W.** Interview with Terry Griffin-United Soybean Board February 27, 2019 <https://agmanager.info/machinery/precision-agriculture/interview-terry-griffin-united-soybean-board>
12. Ibendahl, G., and **Griffin, T.W.** 2019. Why Successful Farms Succeed, KSRN RADIO INTERVIEWS February 27, 2019 <https://agmanager.info/news/why-successful-farms-succeed>
13. Ibendahl, G., and **Griffin, T.W.** 2019. Machinery Investment and Farm Profitability, KSRN RADIO INTERVIEWS April 12, 2019 <https://agmanager.info/news/machinery-investment-and-farm-profitability>
14. \*Faith & Economics Podcast, Ottawa University, Ottawa, Kansas. Opportunity Cost of Keeping the Sabbath Holy. December 31, 2018 <https://anchor.fm/faithandconomics/episodes/Opportunity-Cost-of-Keeping-the-Sabbath-Holy-e2pigk>
15. Ag Today Radio podcast: Making the Move to Organic Production: K-State precision agriculture economist Terry Griffin and graduate researcher Emily Carls talk about the economics of transitioning from conventional crop production to organic production as a means of diversifying farm income...they studied the likelihood of economically succeeding with such a conversion over several years' time and the factors that would influence that. <http://agtodayksu.libsyn.com/making-the-move-to-organic-production-agriculture-today-december-11-2018>
16. Ag Today Radio podcast: The Cost of Taking a Day Off: K-State agricultural economists Brian Coffey and Terry Griffin talk about their new economic analysis of how taking part or all of a day off from farming activities for religious purposes affects farm income...their work shows that there is a cost to observing the Sabbath, although that has to be weighed against the faith and spiritual value of doing so. <http://agtodayksu.libsyn.com/the-cost-of-taking-a-day-off-agriculture-today-december-13-2018>
17. Forecasting Fieldwork Days: K-State agricultural economist **Terry Griffin** and student researcher Sara Gammon talk about an online resource they manage: it maintains a running projection of days suitable for fieldwork in Kansas, based on weekly USDA data...they explain how producers can use this information to their advantage. September 14, 2018. <http://agtodayksu.libsyn.com/forecasting-fieldwork-days-agriculture-today-september-14-2018>
18. Precision Agriculture Survey: K-State agricultural economist Beth Yeager and **Terry Griffin** discuss their latest analysis of the adoption of precision agricultural technologies by Kansas farmers...they've surveyed members of the Kansas Farm Management Association about the kinds of technologies

- they've been utilizing, as well as the technology upgrades they tend to favor. June 19, 2018. <http://agtodayksu.libsyn.com/wheat-harvest-reports-agriculture-today-june-19-2018>
19. Agriculture Technology Podcast: Big Data with **Terry Griffin**, Part 1 RDO Equipment Podcasts Posted on Jun 6, 2018 Join host Tony Kramer this week as he talks with Dr. Terry Griffin (aka @SpacePlowBoy), a Cropping Systems Economist at Kansas State University. Dr. Griffin fills us in on what Big Data and IOT are, and how those in the agriculture industry can leverage this information on the farm. <https://www.rdoequipment.com/more/podcasts/agriculture-technology-podcast-big-data-with-terry-griffin-part-1>
  20. Agriculture Technology Podcast: Big Data with **Terry Griffin**, Part 2 RDO Equipment Podcasts Posted on Jun 20, 2018 In Part 2 of this podcast series with Dr. Terry Griffin (aka @SpacePlowBoy), Tony Kramer talks with Dr. Griffin about how Big Data is being used in many industries, including agriculture. <https://www.rdoequipment.com/more/podcasts/agriculture-technology-podcast-big-data-with-terry-griffin-part-2>
  21. Precision Ag “Down Under”: K-State precision agricultural engineer **Terry Griffin** reflects on his recent assignment in Australia, where he met with leading agricultural producers in the state of Victoria and learned about their adoption of precision agriculture technology and their approaches to data management...he tells of things he picked up that would potentially interest producers here in Kansas. March 22, 2018. <http://agtodayksu.libsyn.com/agriculture-today-march-22-2018>
  22. 2018 Kansas Agricultural Technologies Conference: Precision agricultural engineer Ajay Sharda and precision agricultural economist **Terry Griffin** of K-State look ahead to the 2018 Kansas Agricultural Technologies Conference being co-hosted by K-State in two weeks...they'll visit about several of the up-and-coming technologies that will be discussed in full at this conference, encouraging all interested producers to attend. January 5, 2018 <http://agtodayksu.libsyn.com/agriculture-today-jan-5-2018>
  23. New Online Tax Tool For Producers: K-State agricultural economist **Terry Griffin** and Texas A&M agricultural law specialist Tiffany Lashmet talk about the new on-line aid that they have created for agricultural producers to use when determining the capital gains tax liability of a land sale, especially when the value of that land upon inheritance is unknown...they developed a series of tables for each of the continental 48 states that producers can use to calculate an estimate of the stepped-up basis for their property. December 7, 2017 <http://agtodayksu.libsyn.com/agriculture-today-dec-7-2017>
  24. Precision Cropping Technologies On The Farm: K-State precision technology economist **Terry Griffin** shares the findings of his latest study of farmer adoption of precision cropping technologies...this time, his work concentrated on the technology "bundles" that producers gravitate toward, and how that relates to the frequency that producers transition to variable-rate technologies. November 29, 2017 <http://agtodayksu.libsyn.com/agriculture-today-nov-29-2017>
  25. Farmers and Technology: K-State precision agriculture economist **Terry Griffin** reports on his new study of how quickly farmers adopt new precision cropping technology, based on a survey of Kansas Farm Management Association members...it suggests that the sooner producers employ new technology, the more inclined they are to adopt the next technological advance. October 4, 2018 <http://agtodayksu.libsyn.com/agriculture-today-oct-4-2017>
  26. Guarding Your Farm Data: K-State precision agricultural economist **Terry Griffin** discusses some of the current thinking on the ownership of farm data, and whether producers would be wise to "go off the grid" with their data...he maintains that the value of that data diminishes greatly by isolating it to keep it private. September 28, 2017 <http://agtodayksu.libsyn.com/agriculture-today-sept-28-2017>
  27. Precision Ag Matters: K-State precision agricultural economist **Terry Griffin** reports on the topics that generated the most discussion at a major precision agriculture technology conference that he attended last week in Scotland....he also talks about his current research into the economics of using precision guidance cultivation as an alternative to herbicide use against resistant weed populations. July 26, 2017 <http://agtodayksu.libsyn.com/agriculture-today-july-26-2017>
  28. Present, and Future of Ag Tech. Farm Journal AgriTalk on AgWeb radio 15:00 to 23:00 minute marks interviewed by Clifton Griffiths. December 13, 2017.
  29. Farm Data Ownership update on AgManager Blogs, September 28, 2017. <https://www.agmanager.info/news/farm-data-ownership-0>
  30. Precision Ag Issues, July 26, 2017. <https://www.agmanager.info/news/precision-ag-issues>

31. Inter-generational Farm Transition with Britney Rosburg. May 23, 2017 <https://www.ksre.k-state.edu/news/radio-network/agtoday-mp3/032317-rosberg.mp3>
32. Optimal Crop Fieldwork Days with Michelle Mensing, March 16, 2017 <https://www.agmanager.info/news/optimal-crop-fieldwork-days>
33. Data Management for Producers with Ajay Sharda, January 27, 2017 <https://www.agmanager.info/data-management-producers>
34. Precision Ag Technology with Torrez, C., Miller, N.J., Ramsey, S. December 13, 2016. <https://www.ksre.k-state.edu/news/radio-network/agtoday-mp3/121316-griffin.MP3>
35. Farm Data Ownership: Terry Griffin and Shannon Ferrell address this topic ahead of January's Kansas Agricultural Technologies Conference. December 15, 2016. <https://www.ksre.k-state.edu/news/radio-network/agtoday-mp3/121516-griffin.MP3>
36. Precision Ag Technology: Terry Griffin and graduate researchers review their recently-completed study of farmers' decisions as to adopting precision agriculture technology. December 13, 2016. <https://www.ksre.k-state.edu/news/radio-network/agtoday-mp3/121316-griffin.MP3>
37. Conference Preview: **Terry Griffin** and Lucas Haag promote January's 2017 Kansas Agricultural Technologies Conference, with a focus on management of precision technology data. November 23, 2016. <https://www.ksre.k-state.edu/news/radio-network/agtoday-mp3/112316-griffin.mp3>
38. October 11, 2016: Precision Ag Adoption. Bergtold, Noah Miller and Griffin discuss precision ag adoption on KSRE Ag Today radio. <https://www.ksre.k-state.edu/news/radio-network/agtoday-mp3/1011-Griffin%20Bergtold%20Miller.MP3>
39. Ajay Sharda and **Terry Griffin** look ahead to August events at K-State covering precision planter technology and yield monitors. July 27, 2016. <http://agmanager.info/news/precision-planter-and-yield-monitor-technology-workshops-ajay-sharda-and-terry-griffin>
40. Precision agricultural engineer Ajay Sharda and cropping systems economist **Terry Griffin** of K-State talk about automated boom height controls on field sprayers. July 12, 2016. <http://agmanager.info/automated-boom-height-controls>
41. **Griffin, T.W.** May 11, 2016. Capturing Value From Precision Agricultural Data: Big Data in Ag Webcast <http://www.plantmanagementnetwork.org/edcenter/seminars/cotton/PrecisionAgData/>
42. January 15, 2016: Yield Monitor Data: Terry Griffin talks about "cleaning" and sorting crop production data, as will be demonstrated at upcoming K-State workshops. <https://www.ksre.k-state.edu/news/radio-network/agtoday-mp3/011516-griffin.MP3>
43. October 27, 2015: K-State agricultural economist and cropping systems specialist, Terry Griffin, discusses the economics and renewed interest in crop field imagery. Economics and Renewed Interest in UAVs and Drones. Interviewed by Eric Atkinson Agriculture Today KSRE Radio October 27, 2015 [http://www.agmanager.info/news/Radio/Griffin\\_10-27-15.mp3](http://www.agmanager.info/news/Radio/Griffin_10-27-15.mp3)
44. October 8, 2015: K-State agricultural economists Terry Griffin and Gregg Ibendahl analyze the farm profitability numbers over time, with important observations for producers. Transitioning Between Farm Profitability Categories. Interviewed by Eric Atkinson Agriculture Today KSRE Radio October 8, 2015 with Gregg Ibendahl [http://www.agmanager.info/news/Radio/Griffin-Ibendahl\\_10-08-15.mp3](http://www.agmanager.info/news/Radio/Griffin-Ibendahl_10-08-15.mp3)
45. August 18, 2015: K-State agricultural economists Terry Griffin and Mykel Taylor talk about a new method they've devised for estimating farm and ranch land values, using historical land price data. They explain how this can be useful in determining land value basis for tax purposes and for tracking land value trends. They also talk about the USDA's latest Kansas agricultural land value data, and what it suggests about rental rate trends ahead.(2 parts). Interviewed by Eric Atkinson Agriculture Today KSRE Radio with Mykel Taylor August 18 2015.
46. Big Data. Kansas Soybean radio interviewed by Greg Akagi. May 26, 2015.
47. April 14, 2015: K-State cropping systems economist Terry Griffin discusses how precision farming data is becoming a more prominent factor in determining farmland values, saying that at some point either premiums will be paid for land with such data available, or there will be discounts for land that isn't accompanied by data.
48. April 2, 2015: New K-State cropping systems economist Terry Griffin talks about collecting and managing crop production data through precision technology, and what he tells producers about utilizing the technology for the benefit of their economic returns. Precision Agriculture and Big Data.



Interviewed by Eric Atkinson Agriculture Today KSRE Radio. April 2, 2015.

### Television and Video Interviews

1. **Griffin, T.W.** 2019. Thursday Show 10242019 Terry Griffin, Farming Unlimited TV October 24, 2019. <https://www.youtube.com/watch?v=GieufVar75Y>
2. **Griffin, T.W.** 2019. Authentic Ag Part 1 Interview with Terry Griffin - October 4, 2019 <https://www.youtube.com/watch?v=rcifkDz0e2A>
3. **Griffin, T.W.** 2019. Authentic Ag Part 2 Interview with Terry Griffin - October 4, 2019 <https://www.youtube.com/watch?v=QjqfiJyt9b8>
4. **Griffin, T.W.** et al. 2019. 14th International Conference on Precision Agriculture Recap, AV3 AEROVISUAL. June 8, 2019. <https://av3aerovisual.com/en/14th-icpa-recap/>
5. Farm Data Issues, RFD TV, February 8, 2017
6. Big Data & Insurance - Terry Griffin - November 27, 2015, University of Nebraska – Lincoln, Market Journal. <https://www.youtube.com/watch?v=Wu84ResrB1U&feature=youtu.be>
7. Days Suitable for Fieldwork. Ag AM in Kansas, September 8, 2015 <http://www.agaminkansas.com/portfolio-view/terry-griffin-2/>
8. 2015 Soil Big Data Conference. Canberra, Australia. June 2015 <https://www.youtube.com/watch?v=XkkS0i19xEY>
9. Big Data in Agriculture Is Here to Stay February 16, 2015 <http://www.precisionag.com/video/data/dr-terry-griffin-big-data-in-agriculture-is-here-to-stay/>
10. .

### In-service Training Events Taught

1. **Griffin, T.W.** and J.K. Ward. 2019. Cleaning Yield Monitor Data. Digital Agriculture Workshop for North Carolina State University Extension Agents. Raleigh, NC. January 16, 2019.
2. **Griffin, T.W.** 2016. KFMA Precision Agriculture. Overview of precision ag project results presented to KFMA economists. May 19, 2016. Manhattan, KS
3. Basics of Precision Agriculture. Coordinated 8-Week Series for County Agents using Online Distance Education Methods. University of Arkansas Division of Agriculture. October – November 2011.
4. Technology & Agriculture in Arkansas History. In-service Training for 55 teachers at Bryant Elementary School, Bryant Arkansas, August 2011. (2-hour workshop)
5. Variability in Nutrient Concentrations: Role of Precision Agriculture. University of Arkansas Cooperative Extension Service, Arkansas 4-H Center, Ferndale, Arkansas.
6. Effectively Using GPS in Management. Purdue Cooperative Extension Service Agriculture and Natural Resources In-service Training in Lebanon Indiana, October 2005.

### Extension Newsletters

1. **Griffin, T.W.** 2017. Farm Data Ownership update on AgManager Blogs, September 28, 2017. <https://www.agmanager.info/news/farm-data-ownership-0>
2. Lollato, R., **Griffin, T.W.** 2016. Management adjustments when sowing wheat late. Agronomy eUpdate October 28, 2016
3. **Griffin, T.W.**, I.A. Ciampitti, and C. Torrez. 2016. Expected Number of Days to Harvest Summer Crops in Kansas. Agronomy eUpdate October 7, 2016
4. **Griffin, T.W.**, I.A. Ciampitti, and C. Torrez. 2016. Expected Number of Days to Plant Summer Crops in Kansas. Agronomy eUpdate April 15, 2016 issue 563 [https://webapp.agron.ksu.edu/agr\\_social/eu\\_article.throck?article\\_id=901](https://webapp.agron.ksu.edu/agr_social/eu_article.throck?article_id=901)
5. **Griffin, T.W.** and Ibendahl, G.I. 2015. Do Profitable Farms Remain Profitable? Probability of Switching between Profit Categories. KFMA Research Highlights. December 2015.

6. **Griffin, T.W.** 2015. How Precision Agriculture Impacts Production and Profitability in Kansas: An upcoming first-of-its-kind study using KFMA databank. KFMA Newsletter: September 2015. Online: [http://www.agmanager.info/news/KFMA\\_News/default.asp#NFI](http://www.agmanager.info/news/KFMA_News/default.asp#NFI)
7. **Griffin, T.W.** 2015. Days Suitable for Fieldwork in Kansas. KFMA Newsletter: June 2015. Online: [http://www.agmanager.info/news/KFMA\\_News/June\\_2015.asp#DSPK](http://www.agmanager.info/news/KFMA_News/June_2015.asp#DSPK)
8. **Griffin, T.W.** and I. Ciampitti. 2015. Expected number of days to plant summer crops in Kansas. Agronomy eUpdate April 3, 2015 issue 501 <http://ksu.ag/1G7JXqS>
9. Haag, L.A., A. Sharda, I. Ciampitti, T. Griffin. 2015. Deadline nearing for KARTA on-farm research grant opportunities. K-State Department of Agronomy eUpdate. Number 493. February 13. [https://webapp.agron.ksu.edu/agr\\_social/eu\\_article.throck?article\\_id=475](https://webapp.agron.ksu.edu/agr_social/eu_article.throck?article_id=475)
10. Watkins, K.B., **Griffin, T.W.**, Runsick, S.K., Mazzanti, R. Wilson, C.E. 2010. Rice yield potential based on planting date. University of Arkansas Rice Research News Summer 2010, 2(4) pp 7-8.
11. Griffin, Terry, Bruce Ahrends, Brad Watkins, and Jeffrey Hignight. "Trends in Arkansas Farm Land Values: The 2009 Update." In R. Rainey (ed.) Farm Management and Marketing Newsletter. University of Arkansas - Division of Agriculture. 17(2) September 2009:4-7
12. **Griffin, T.W.** and Erickson, B.E. 2009. Adoption and Use of Yield Monitor Technology for U.S. Crop Production. In Site Specific Management Center Newsletter, Purdue University, April 2009. <http://bit.ly/1vXIaOu>
13. **Griffin, T.W.**, Ahrends, B., Watkins, K.B., and Hignight, J. 2008. Trends in Arkansas Farmland Values: The 2008 Update. In R. Rainey (ed.) Farm Management and Marketing Newsletter, University of Arkansas - Division of Agriculture. 16(3) September 2008.
14. **Griffin, T.W.**, Barber, L.T. 2007. Whole-farm profitability impacts from cotton harvest efficiency. In R. Rainey (ed.) Farm Management and Marketing Newsletter, University of Arkansas - Division of Agriculture. 15(4) December 2007.
15. **Griffin, T.W.**, Vyn, T., Dobbins, C., Florax, R., Lowenberg-DeBoer, J. 2007. Making the Most of Yield Monitor Data from On-farm Trials using Spatial Analysis. Purdue Agricultural Economics Report November 2007, West Lafayette, IN. pp 5-8.
16. **Griffin, T.W.**, Lowenberg-DeBoer, J., and Erickson, B. 2007. Using Yield Monitor Data for On-Farm Experiments. Top Farmer Crop Workshop Monthly Update October 2007. <http://bit.ly/Zj4Hs8>
17. **Griffin, T.W.**, Watkins, K.B. 2007. Trends in Arkansas Farmland Values. In R. Rainey (ed.) Farm Management and Marketing Newsletter, University of Arkansas - Division of Agriculture. 15(3) September 2007 pp 2-3.
18. **Griffin, T.W.**, Lowenberg-DeBoer, J., and Erickson, B. 2007. A Primer for On-Farm Experiments Using Yield Monitor Data. Site Specific Management Center, Purdue University, October 2007. <http://bit.ly/1s3u8by>
19. **Griffin, T.W.** and Stiles, S. 2007. "Should Specialized Machinery Impact Crop Choice and Acreage Allocation Decisions?" In R. Rainey (ed.) Farm Management and Marketing Newsletter, University of Arkansas - Division of Agriculture. 15(2) June 2007.
20. **Griffin, T.W.** 2007. "Making the Most of Precision Agriculture Technologies for On-farm Research" In R. Rainey (ed.) Farm Management and Marketing Newsletter, University of Arkansas - Division of Agriculture. University of Arkansas. 15(1) March 2007: pp. 5-6.
21. **Griffin, T.W.**, Dobbins, C. and Lowenberg-DeBoer, J. 2006. "Whole Farm Profitability Impact from Implementing and Harvesting On-farm Trials: A Linear Programming Model" in Site-Specific Management Center, Purdue University, August 2006. <http://bit.ly/1o4185c>
22. Lowenberg-DeBoer, J. and **Griffin, T.W.** 2006. "Potential for Precision Agriculture Adoption in Brazil" in Site-Specific Management Center, Purdue University, June 2006. <http://bit.ly/ZTM3s8>
23. **Griffin, T.W.**, Florax, R.J.G.M. and Lowenberg-DeBoer, J. 2004. "Yield Monitors and Remote Sensing Data: Sample Statistics or Population?" in Site Specific Management Center, Purdue University, December 2005. <http://bit.ly/1s3ugI0>
24. **Griffin, T.W.**, Lambert, D.M., Lowenberg-DeBoer, J., and Erickson, B.E. 2004. "Using Cotton Yield Monitor Data for Farm-Level Decision Making" in Site-Specific Management Center, Purdue University, October 2004. <http://bit.ly/ZyE6rs>

25. Lambert, D.M. and **Griffin, T.W.** 2004. "Lessons Learned from the Top Farmer 2004 Yield Monitor Data Analysis Sessions" in Purdue University Top Farmer Crop Workshop Monthly Update, September 2004. <http://bit.ly/1qqux3N>
26. **Griffin, T.W.** and Lambert, D.M. 2004. "Suggestions for Producers Considering Yield Monitor Data Analysis" in Site Specific Management Center, Purdue University, September 2004. <http://bit.ly/1yXeGE1>
27. **Griffin, T.W.** and Lambert, D.M. 2004. "Measuring the Pulse of Technology at the 7th International Precision Agriculture Conference" in Site Specific Management Center, Purdue University, August 2004. <http://bit.ly/1yih0UV>
28. **Griffin, T.W.** 2004. "How GPS Auto-Guidance Affects Existing Farms" in Site Specific Management Center, Purdue University, June 2004. <http://bit.ly/1EEzQXM>
29. Lowenberg-DeBoer, J. and **Griffin, T.W.** 2003. "The 2004 Top Farmer Crop Workshop Adds Yield Map Analysis" in Site Specific Management Center, Purdue University, September. <http://bit.ly/1uS11ZO>
30. **Griffin, T.W.** 2002. "Utilizing Precision Farming Technologies in a Management Intensive Grazing System" in AGRO-ECOLOGY News and Perspectives: Science and Education for a Sustainable Agriculture 11(3) pp 9-10. <http://bit.ly/1oYJWZI>
31. **Griffin, T.W.** 2002. Value of Precision Farming Data. University of Illinois Extension *farmdoc* Farm Management News Releases May 2002. <http://bit.ly/1o41kB5>
32. **Griffin, T.W.** 2002. Fee Hunting: A Form of Agri-tainment. University of Illinois Extension *farmdoc* Farm Management News Releases January 2002. <http://bit.ly/1tLExXs>
33. **Griffin, T.W.** 2001. Farmland Cash Rents as a Function of Soil Productivity Rating. University of Illinois Extension *farmdoc* Farm Management News Releases October 2001. <http://bit.ly/1tiBIml>
34. **Griffin, T.W.** 2001. Comparison of Midwest and Midsouth Agriculture. University of Illinois Extension *farmdoc* Farm Management News Releases May 2001. <http://bit.ly/1s3uPBB>
35. **Griffin, T.W.** 2001. Leasing versus purchase of farm machinery. University of Illinois Extension *farmdoc* Farm Management News Releases February 2001. <http://bit.ly/1tLEJWB>
36. Popp, J.S. and **Griffin, T.W.** 2001. "Profitability of Variable Rate Phosphorus in a Rice and Soybean Rotation" in Farm Management and Marketing Newsletter, University of Arkansas - Division of Agriculture. 9(1):8-10.
37. Popp, J.S. and **Griffin, T.W.** 2000. "The Status of Precision Farming in Arkansas" in Farm Management and Marketing Newsletter, University of Arkansas - Division of Agriculture. 8(2) July 2000:1-3.

**TEACHING****Classroom Instruction**

Western Illinois University, Macomb, IL	
Introduction to Agricultural Economics	Fall 2000
Precision Agriculture Capstone (2 sections)	Spring 2003
Purdue University, West Lafayette, IN	
Farm Management teaching assistant	Fall 2004
Spatial Econometrics teaching assistant	Spring 2006
University of Arkansas, Fayetteville, AR	
Special Problems: Spatial Econometrics	Spring 2009
Agricultural Price Analysis and Forecasting	Spring 2009
Student evaluation:	
Kansas State University, Manhattan, KS	
Spatial Econometrics AGEC936	Spring 2016, 2017, 2018, 2019

**International Instruction in Australia**

Longerenong College. Week-long intensive course on digital agriculture data analysis July 2018.

**Guest lectures at KSU**

AGEC 308 (Yeager) 2016 and 2017 Whole-farm linear programming  
 AGECE 598 (Ibendahl) 2016, 2017, 2018, 2019 Whole-farm LP & least cost fertilizer blends  
 AGECE 501 (Villoria) 2016 Whole-farm linear programming  
 AGECE 823 (Lambert) 2 lectures 2016 on big data in agriculture including APIs  
 AGRN 330 (Dille) 2018 Economics of Site Specific Weed Management  
 AGRN 655 (Roozeboom) Precision Agriculture  
     Big Data Implications for Precision Agriculture (2019)  
     Yield monitor data quality (2019)  
 ATM 550 (Sharda) Precision Agriculture  
     Big Data Implications for Precision Agriculture (2015, 2016)  
     Decision Making with Whole-farm Linear Programming 2017  
     Yield monitor data quality (2015, 2016, 2017, 2018, 2019)  
 BAE 815 (Liu) 2018 Graduate Seminar on quantitative literature reviews and meta-analysis

**Guest lectures other than KSU**

Highland Community College, Wamego, KS  
     Precision Agriculture, Big Data, GNSS, and Geocaching, September 9 and 23, 2016  
 Oklahoma State University, Stillwater, OK  
     Precision Agriculture Course, Professor Brian Arnall Big Data in Agriculture. April 3, 2015  
 Purdue University, West Lafayette, Indiana.  
     Big Data in Agriculture with Tom Mueller. for Professor Lee Schweitzer, 2014  
 University of Kentucky, Lexington, Kentucky  
     Big Data in Agriculture. Graduate Capstone Course, Professor Jason Unrine, 2014

**Short Courses and Graduate Student Trainings**

1. GIS Bootcamp for AgEcon Grad Students. Series of 4 2-hour workshops. Kansas State University Graduate Students Agricultural Economics. Manhattan, Kansas. September 2018.
2. GIS Bootcamp for AgEcon Grad Students. Series of 4 2-hour workshops. Kansas State University Graduate Students Agricultural Economics. Manhattan, Kansas. September 19-28, 2017.
3. GIS Bootcamp for AgEcon Grad Students. Kansas State University Graduate Students Agricultural Economics. Manhattan, Kansas. September 21-24, 2015.
4. Technology, Tools, and Apps to Manage Data Overload. American Society of Farm Managers and Rural Appraisers Summer Education Week. Omaha, NE. July 15, 2013. (8-hour workshop) with Tyler Mark.

5. An Introduction to Meta-Analysis. University of Arkansas Medical Sciences November 2009. Griffin led with a 90-minute presentation on Getting Started with Meta-analysis. (8-hour workshop) with Jonkman, J.N. and Stanley, T.D. <http://bit.ly/1smniPN>
6. “Basic Concepts & Agricultural Applications of GPS/GIS” Professional Development (Technology) Workshop for Vocational Agriculture Teachers. University of Arkansas at Monticello, June 29, 2007.
  - i. Making the Most of Yield Monitor Data for On-farm Trials
  - ii. GPS Guidance on the Farm
  - iii. Profitability of Precision Agriculture
7. Yield Monitor Data Analysis Workshop. 19 participants including farmers and consultants from 3 U.S. states and Canada for follow-up to the hands-on workshop covering implementing field-scale experimental designs, data collection and handling, spatial analysis, and farm management decision-making March 1, 2007 at Purdue University, West Lafayette, IN. (5-hour workshop)
8. Taught numerous 1 to 2-day workshops on Applied Spatial Statistical Methods to Analyze Site-Specific Yield Data for Cotton Inc. Cary, NC, Florence, SC., Austin, TX, San Antonio, TX from 2006-2011. (4-hour, 8-hour, and multi-day workshops)

## GRADUATE STUDENT INSTRUCTION

### **Degree-seeking Graduate Students: Griffin as Major Advisor**

Bellar, Luke. MAB. 2020 Agricultural Economics, Kansas State University  
 Harper, Kevin. MAB. 2020 Agricultural Economics, Kansas State University  
 Kohls, Kevin. MAB. 2020 Agricultural Economics, Kansas State University  
 Wolters, Josh. MAB. 2020 Agricultural Economics, Kansas State University  
 Randall, Pierse. MAB. 2020 Agricultural Economics, Kansas State University

### **Degree-seeking Graduate Students: Griffin as Committee Member**

Badua, Sylvester. MS. Department of Bio and Agricultural Engineering, KSU. Advisor: Ajay Sharda  
 Ambrose, Chris. MAB. Agricultural Economics, KSU. Advisor: Vincent Amanor-Boadu  
 Pham, Lina. MAB. Agricultural Economics, KSU. Advisor: Alex Shanoyan  
 Thomas, Raymond. MS. Agricultural Economics, KSU. Advisor: Keith Harris  
 Rutter, Bryan. PhD. Agronomy, KSU. Advisor: Dorivar Ruiz Diaz

### **Degree-earned Graduate Students: Griffin as Major Advisor denoted by \***

1. Drye, Shelby. MAB. 2019 Agricultural Economics, Kansas State University
2. Wehrbein, Kalby. MAB. 2019 Agricultural Economics, Kansas State University
3. \*Carls, Emily. MS. 2019 Agricultural Economics, Kansas State University
4. \*Cullop, Jared. MS. 2019 Agricultural Economics, Kansas State University
5. Varela, Sebastian. PhD. Department of Agronomy, Kansas State University. Advisor: Dr. Ciampitti.
6. Lindbloom, Michael. PhD. Agricultural Economics, Kansas State University. Measuring the resilience of Kansas Farms. Advisor: Shanoyan
7. \*Stabel, Jayce. MS. 2018 Agricultural Economics, Kansas State University. Farm Financial Persistence and Characteristic Analysis
8. Rouse, Tyler. MAB. 2018 Agricultural Economics, Kansas State University. Advisor: Alex Shanoyan
9. Boney, Barry. MS Department of Plant Pathology, University of Arkansas. Advisor: Dr. Terry Spurlock
10. Xintong Li. PhD. 2018 Department of Statistics, Kansas State University. Advisor: Dr. Juan Du. Modeling for Spatial and Spatio-Temporal Data with Applications
11. \*Rosburg, Britney. MAB. 2017 Agricultural Economics, Kansas State University. Inter-Generational Transition Strategy Assessment: The Case of Rosburg Farms
12. \*Mensing, Michelle. MAB. 2017 Agricultural Economics, Kansas State University. Farm management implications of uncertainty in the number of days suitable for fieldwork in corn production
13. Orlowski, Jan. PhD. 2017. Sydney University, Sydney, Australia. Co-advisor with Dr. David Ubilava. The ENSO Cycle and Predictability of US Crop Yields
14. \*Sisung, Theresa. MAB. 2016 Agricultural Economics, Kansas State University. Soil testing and nutrient application practices of agricultural retailers in the Great Lakes Region
15. \*Bennett, Jeff D. MAB. 2016 Agricultural Economics, Kansas State University. Value of Map Sharing between Multiple Vehicles Using Automated Section Control
16. \*Maurer, Jacob. MAB. 2015 Agricultural Economics, Kansas State University, Manhattan, Kansas. The Development of a Conceptual Benchmarking Tool Representing Big Data and Agricultural Technology Adoption on the Farm
17. Wright, Rodney. Ph.D. 2015 Environmental Sciences, Arkansas State University, Jonesboro, Arkansas. Environmental and Economic Implications of the Biofuel Provisions of “*The Energy Independence and Security Act of 2007*” on Mississippi Delta Farms. Griffin led essay on “Economic Case Study of a Northeast Arkansas Farm and the Crop Selection Process”
18. Griffith, Griff. Ph.D. 2013. Weed Science, University of Arkansas, Fayetteville, Arkansas. Glyphosate-Resistant Palmer Amaranth (*Amaranthus Palmeri*) in Arkansas: Resistance Mechanisms and Management Strategies.
19. Spurlock, Terry. Ph.D. 2013 Plant Pathology, University of Arkansas, Fayetteville, Arkansas. Spatial Distributions of *Rhizoctonia* Species in Soybean Fields Undergoing Annual Rotations with Rice.

## PROFESSIONAL SERVICE

### Current Professional Membership Service

International Society of Precision Agriculture (ISPA) 2010 - present  
 Treasurer 2016-2020  
 Founding Leader, Community on Economics, Profitability, Adoption, and Risk  
 Judge, Pierre Robert Precision Agriculture Awards 2016-present  
 Kansas Agricultural Research and Technology Association (KARTA)  
 Advisory board member 2015-present  
 InfoAg planning committee 2019, 2020  
 American Society of Agricultural and Biological Engineers (ASABE)  
 MS-49 Crop Production Systems, Machinery, and Logistics 2015-present  
 MS-54 Precision Agriculture 2009-present  
 International Farm Management Association  
 Association of Christian Economists  
 North Central Region Farm Technology Network (2015-2016)  
 Kansas FFA Agribusiness Committee 2016-present  
 PrecisionAg Institute Awards Committee 2008-present  
 National Association of County Agriculture Agents (NACAA)  
 Agricultural and Applied Economics Association (AAEA)  
 AAEA Topic Leader – Production 2015-2017  
 Economics, Statistics & Information Resources Committee 2017-2020  
 C-FARE Steering Committee on Big Agricultural Data 2015-present  
 C-FARE Steering Committee on Farm Data and USDA NASS 2019-present  
 Southern Agricultural Economics Association (SAEA)  
 Western Agricultural Economics Association (WAEA)

### Journal Editorial Services

Agronomy Journal - Associate Editor 2019-2021  
 J of the American Society of Farm Managers and Rural Appraisers - Editorial Committee 2007-2013  
 J of National Association of County Agricultural Agents - Editorial Committee 2010-2011  
 J of Extension - Editorial Committee 2002-2003

### Service as Peer Reviewer for Journals (last 5 years)

Agricultural Economics  
 Agricultural and Resource Economics Review  
 Agricultural Water Management  
 Agronomy Journal  
 American Journal of Agricultural Economics (AJAE)  
 Applied Engineering in Agriculture  
 Canadian Journal of Agricultural Economics (CJAE)  
 Climate Risk Management  
 Computers and Electronics in Agriculture (COMPAG)  
 Geoforum  
 J of Agricultural and Applied Economics (JAAE)  
 J of Agricultural Economics  
 J of Agricultural and Resource Economics (JARE)  
 J of Cotton Science  
 J of Soil Science Society of America  
 Precision Agriculture (PRAG)  
 Review of Agricultural Economics  
 Transactions of the American Society of Agricultural and Biological Engineers  
 Weed Technology

### **Other Professional Memberships**

Alpha Zeta Honorary Agricultural Fraternity – University of Arkansas  
Gamma Sigma Delta Honor Society of Agriculture – University of Arkansas  
Delta Region Farm Management and Agricultural Policy Working Group SERA035

### **Previous Professional Leadership and Service**

Arkansas Crop Protection Association  
Past-President: 2014-15, President: 2013-14, President-elect: 2012-13, Vice-President: 2011-12  
Board member: 2008-2011, Chair Audit: 2008, Chair Scholarship: 2008-2011  
American Society of Farm Managers and Rural Appraisers  
Secretary-Treasurer of Mid-South Chapter 2008-2013  
Southern Extension Farm Management Committee  
Secretary 2008-2009, Incoming Chair 2009-2010, Chair 2010-2011  
North Central Farm Management Extension Committee Meeting  
Stillwater, OK May 12-14, 2008, West Lafayette, IN May 21-22, 2015  
10<sup>th</sup> International Conference on Precision Agriculture  
Chair - Economics Sessions/Theme; Chair - Optimizing Use of Spatial Technologies  
9<sup>th</sup> European Conference on Precision Agriculture  
Member of the Scientific Committee taking part in peer-review process of oral communications  
NCERA180 Precision Agriculture Technologies for Food, Fiber, and Energy Production  
Planning Committee 2011-2012  
National Science Foundation External Reviewer 2003-2004  
Jackson State Community College – Precision Agriculture Program

### **Previous Judging Committees**

Farm Family of the Year Judging with Arkansas Farm Bureau  
Ozark Region 4-H O’Rama Ag Business Speaking

### **USDA NIFA Panelist**

2018 Panelist - USDA NIFA  
2017 Panelist - USDA NIFA  
2016 Panelist - USDA NIFA  
2008 Panelist - USDA CSREES NRI

### **Professional Certifications**

Certified Crop Advisor – *American Society of Agronomy* Certification number: 321622  
Competent Toastmaster – *Toastmasters International*

### **Search and Screening Committees – Kansas State University, Department of Agricultural Economics**

Southwest Kansas Economist, Garden City, KS  
Kansas Farm Management Association – South Central Screening Committee, 2015  
Kansas Farm Management Association – South Central Screening Committee, 2018  
Land Use Value Program Extension Assistant, 2015

### **Extension Committees and Memberships – Kansas State University**

Kansas Association of County Agricultural Agents (KACAA) 2015-present  
North Central Region Farm Technology Committee 2015-present

### **Extension Committees and Memberships – University of Arkansas**

Arkansas Association of Cooperative Extension Specialists (AACES)  
Board Member 2008-2011; Award Committee 2008-2012, Chair 2010-2011  
Co-chair Fundraising Committee 2010-2011  
Arkansas County Agricultural Agents Association (ACAAA), Board Member 2007-2010



Department of Agricultural Economics and Agribusiness Teaching Committee 2009  
Extension Economic Crisis Committee  
University of Arkansas Working Group on Precision Agriculture, Team Coordinator 2011-2012

**Search Committees – University of Arkansas**

Cotton Economist at NEREC  
Pre-Award Grants Officer, Office of Sponsored Programs

**Search Committees - University of Illinois Extension**

Ag Entrepreneur Educator – Quad Cities Center 2001  
Crops Systems Educator – Macomb Center 2000  
Regional Director – West Central Region 2002  
Youth Development Educator - Cass-Schyuler Unit 2000, McDonough Unit 2001

**Extension Committees and Memberships - University of Illinois Extension**

Annual Conference Committee 2001-2002  
Awards and Recognition Committee 2000-2002, Chair 2001-2002  
Epsilon Sigma Phi (ESP) - inducted 2001  
Illinois Electric Council – Representing University of Illinois 2002  
Illinois Extension Agricultural Agents 2000-2003, NACAA Reserve Funds Oversight Committee 2002-03  
Illinois Soybean Board – Representing University of Illinois 2001-2002  
Illinois Specialty Growers Association Conference Planning Committee, Irrigation Division Leader  
Mentor to Crops Systems Extension Educator – Macomb Center  
Regional Advisory Committee 2000-2002  
Regional Holiday Get Together Committee 2000-2002, Co-chair 2001-2002  
Regional Staff Development Committee 2000-2002, Co-chair 2001-2002