# Shyam S. Nair

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# **EDUCATION**

2011	Ph.D.	Agricultural & Applied Economics	Texas Tech University, Lubbock, TX.		
		Dissertation: "Three Essays on the Economics of Precision Agriculture in			
		Cotton Production"			
2001	M.S.	Agronomy	Kerala Agricultural University, India.		
	Thesis: "Integrated Weed Management in Upland Rice"				
1998	B.S.	Agriculture	Kerala Agricultural University, India.		

#### **PROFESSIONAL EXPERIENCE**

September, 2014 - Current December 2013- August 2014	Assistant Professor – Agribusiness, Department of Agricultural Sciences and Engineering Technology, Sam Houston State University Assistant Research Scientist, Texas A&M AgriLife Research, Vernon, TX.		
July 2011- December 2013	Post-Doctoral Research Associate, Department of Agricultural and Applied Economics, Texas Tech University, Lubbock, TX.		
September 2006 –May 2011	Graduate Research Assistant, Texas Tech University, Lubbock, TX.		
November 2005 - August 2006	Agricultural Officer, Punjab National Bank, Mandvi Branch. Kutch District, Gujarat, India		
March 2004 -October 2005	Senior Research Fellow, Central Tuber Crops Research Institute Trivandrum, Kerala, India		

#### **TEACHING ACTIVITIES**

A list of courses taught in the past and currently teaching is provided below.

# Sam Houston State University

AGBU 2389	– Agribusiness Financial Analysis (Fall, 2014)
AGBU 3377	- Farm and Ranch Management (Spring, 2015 - Present)
AGBU 3385	– Quantitative Methods for Agribusiness (Fall 2014 – Present)
AGBU 4375	<ul> <li>Advanced Agribusiness Management (Fall 2014 – Present)</li> </ul>
AGRI 4396	– Directed studies
	Undergraduate Research (Spring, 2015 – Present)

#### Texas Tech University

AAEC 2305 – Fundamentals of Agricultural Economics (Spring and Fall, 2012 and Spring 2013)

# **RESEARCH INTERESTS**

Developing optimal resource use strategies by combining crop growth simulation models and economic optimization models; Water use and water management strategies; Agricultural land use change; Economics of agricultural production; Technology adoption and changes in adoption pattern; Interactions of resource availability and crop and technology choices.

#### AWARDS AND HONORS

2016	Teaching Award of Merit. North American Colleges and Teachers of Agriculture and Department of Agricultural Sciences and Engineering Technology, Sam Houston State University.				
2011	Outstanding Ph.D. Student Award, Department of Agricultural and Applied Economics, Texas Tech University, Lubbock, TX				
2008-09	Eward Zukauckas Scholarship, Department of Plant and Soil Science, Texas Tech University, Lubbock, TX				
2007-08	David Koeppe Memorial Scholarship, Department of Plant and Soil Science, Texas Tech University, Lubbock, TX				

# SCHOLARLY ENDEAVOR

#### **Refereed Journal Articles**

- 1. Barnes, K. R., F. D. Mills Jr., L. A. Wolfskill, **S. Nair**, J. R. Franken, and D. R. Ulrich. 2016. White-tailed Deer Semen Auction Data: A Hedonic Analysis. *The Texas Journal of Agriculture and Natural Resources*. 29: 39-51.
- Attia, A., N. Rajan, S. Nair, P. DeLaune, Q. Xue, A. Ibrahim, and D. Hays. Modeling Cotton Lint Yield and Water Use Efficiency Responses to Irrigation Scheduling using Cotton2K. 2016. Agronomy Journal. 108 (4): 1614-1623.
- 3. Attia, A., N. Rajan, Q. Xue, **S. Nair**, A. Ibrahim, and D. Hays. 2016. Application of DSSAT-CERES-Wheat Model to Simulate Winter Wheat Response to Irrigation Management in the Texas High Plains. *Agricultural Water Management*. 165: 50-60.
- Modala, R., S. Ale, N. Rajan, C. Munster, P. DeLaune, K. Thorp, S. Nair, and E. Barnes. 2015. Evaluation of the CSM-CROPGRO-Cotton Model for the Texas Rolling Plains Region and Simulation of Deficit Irrigation Strategies for Increasing Water Use Efficiency. *Transactions of ASABE*. 58 (3): 685-696.
- Thorp, K. R., S. Ale, M. Bange, E. Barnes, G. Hoogenboom, R. Lascano, A. McCarthy, S. Nair, J. Paz, N. Rajan, R. Reddy, G. Wall, and J. White. 2014. Development and Application of Process-based Simulation Models for Cotton Production: A review of past, present, and future directions. *Journal of Cotton Science*. 18:10-47. (Equal contribution from authors 2 to 13)
- 6. Nair, S., J. Johnson, and C. Wang. 2013. Efficiency of Irrigation Water: A Review from the Perspectives of Multiple Disciplines. *Agronomy Journal*. 105 (2): 351-363.

- 7. Nair, S., S. Maas, C. Wang, and S. Mauget. 2013. Optimal Field Partitioning for Center-Pivot-Irrigated Cotton in the Texas High Plains. *Agronomy Journal*. 105:124-133.
- 8. Wang, C. and S. Nair. 2013. The Economics of Deficit irrigation. *Natural Resource Modeling*. 26(3):331-364.
- 9. Mauget, S., G. Leiker, S. Nair. 2013. A Web Application for Cotton Irrigation Management on the Southern High Plains. Part I: Crop Yield Modeling and Economic Analysis. *Computers and Electronics in Agriculture*. 99: 248-257.
- 10. Mauget, S., G. Leiker, S. Nair. 2013. A Web Application for Cotton Irrigation Management on the Southern High Plains. Part II: Application Design. *Computers and Electronics in Agriculture*. 99: 258-264.
- 11. Wang, Y., C. Wang, S. Nair, and S. Pan. 2013. Industrial and Agricultural Development in Rural China. *Journal of Agribusiness*. 31(1&2): 93-108.
- Nair, S., C. Wang, E. Segarra, J. Johnson, and R. Rejesus. 2012. Variable Rate Technology and Cotton Yield Response in Texas. *Journal of Agricultural Science and Technology B*. 2: 1034-1043.
- 13. Nair, S., C. Wang, E. Segarra, E. Belasco, J. Larson, M. Velandia, D. Lambert, and J. Reeves. 2011. Adoption of Precision Agricultural Practices for Cotton in Southern United States. *Journal of Agribusiness*. 29 (2): 221-241.

#### **Conference Proceedings Papers** (\* Undergraduate student, \*\* Graduate student)

- 1. Nair, S., F. D. Mills, Jr. and L. A. Wolfskill. 2017. Agricultural Land Use Change in the US Cotton Belt. Proceedings of the 2017 Beltwide Cotton Conference. *Forthcoming*.
- 2. \*McKnight, B., **S. Nair**, L. A. Wolfskill, and F. D. Mills, Jr. 2017. Optimal Crop Choice and Water Allocation in Texas High Plains. Proceedings of the 2017 Beltwide Cotton Conference. *Forthcoming*.
- \*\*Barnes, K., J. Franken, L. A. Wolfskill, S. Nair, F. D. Mills, and D. R. Ulrich. 2016. White-tailed Deer Semen Auction Data: A Hedonic Analysis. Proceedings of the Southern Agricultural Economics Association's 2016 Annual Meetings. San Antonio, TX. February 6-9, 2016. Published in AgEcon Search. Available at <u>http://purl.umn.edu/230022</u>
- 4. Nair, S., F. D Mills, K. \*Powers, and B. \*Kresta. 2016. Land Use for Cotton in Corn Dominated Northern Plains of Texas: Trends and Drivers. *Proceedings of the 2016 Beltwide Cotton Conference*. New Orleans, LA. January 5-7, 2016. Page 547-551.
- Nair, S., F. D. Mills, B. \*Kresta, and K. \*Powers. 2016. Drivers of Land Use Change in Southern High Plains of Texas. *Proceedings of the 2016 Beltwide Cotton Conference*. New Orleans, LA. January 5-7, 2016. Page 552- 556.
- Nair, S. L. A. Wolfskill, A. \*Smith, and B. \*Strnadel. 2016. Comparison of Productivity and Profitability Trends of Major Crops in Panhandle District of Texas. *Proceedings of the 2016 Beltwide Cotton Conference*. New Orleans, LA. January 5-7, 2016. Page 557-561.

- Nair, S. L. A. Wolfskill, C. \*Burton, K. \*Reck and K. \*Weyand. 2016. Crop Yield and Profitability Trends in Texas South Plains. *Proceedings of the 2016 Beltwide Cotton Conference*. New Orleans, LA. January 5-7, 2016.Page 562-566.
- 8. Nair, S., C. Wang, E. Segarra, J. Johnson, and R. Rejesus. 2015. Impact of Variable Rate Technology Adoption on Cotton Yield in Texas. *Proceedings of 2015 Beltwide Cotton Conference*, San Antonio, TX. January 5-8, 2015.
- 9. Nair, S., C. Wang, E. Segarra, Y. Wang, and J. Johnson. 2014. Precision Agriculture Adoption by Texas Cotton Producers: Trends and Drivers. *Proceedings of 2014 Beltwide Cotton Conference*, New Orleans, Louisiana.
- Nair, S., C. Wang, S. Maas, T. Knight, E. Segarra, J. Johnson, S. Mauget. 2013. "Managing Weather Risk for Cotton in Texas High Plains with Optimal Temporal Allocation of Irrigation Water." Report No. 2691. 2013 Agricultural and Applied Economics Association & Canadian Agricultural Economics Society annual meeting held in Washington, DC, August 4-6, 2013. Published in AgEcon search, available at <u>http://purl.umn.edu/151222</u>.
- 11. Nair, S., C. Wang, E. Segarra, J. Johnson, and M. Velandia. 2013. Impact of Efficient Irrigation Technologies on Precision Agriculture Adoption in Texas. *Proceedings of 2013 Beltwide Cotton Conference*, San Antonio, Texas.
- 12. Nair, S., C. Wang, E. Segarra, J. Johnson, R. Rejesus, and M. Marra. 2012. Impact of the adoption of precision farming technologies on cotton yield in Texas. *Proceedings of 2012 Beltwide Cotton Conference*, Orlando, Florida.
- Nair, S., C. Wang, E. Segarra, E. Belasco, M. Velandia, and J. Reeves. 2011. Adoption of Variability Detection and Variable Rate Application Technologies by Cotton Farmers in Southern United States. Report No. 13365. 2011 Agricultural and Applied Economics Association & Northeastern Agricultural and Resource Economics Association Joint Annual Meeting, Pittsburgh, PA. July 2011. Published in AgEcon search, available at <u>http://purl.umn.edu/103567</u>.
- 14. Nair, S., C. Wang, E. Segarra, E. Belsaco, M. Velandia, and J. Reeves. 2011. A multinomial logit analysis of the cotton precision farming technologies. *Proceedings of 2011 Beltwide Cotton Conference*, Atlanta, Georgia.
- 15. Nair, S., C. Wang, S. Maas, and E. Segarra. 2011. Optimal spatial and temporal allocation of irrigation water in Texas High Plains. *Proceedings of 2011 Beltwide Cotton Conference*, Atlanta, Georgia.
- 16. Nair, S., C. Wang, E. Segarra, and J. Reeves. 2010. Adoption of precision agriculture practices by cotton growers in Texas. *Proceedings of 2010 Beltwide Cotton Conference*, New Orleans, Louisiana.

# Selected Oral Presentations in Conferences (\* Undergraduate Student, \*\* Graduate Student)

- \*\*Powers, K., F. D. Mills Jr., L. A. Wolfskill, S. Nair and D. Chen. 2017. Does Team Cohesiveness Impact Student Performance in a Team-Based Learning Setting? Presentation at the 16th Annual TBLC Conference, Orlando, Florida, Mar 2-4.
- Wolfskill, L. A., F. D. Mills Jr., S. Nair, D. Chen and K. \*\*Powers. 2017. Influence of Targeted Instruction Post-RAT on Individual and Team Performance in a Team-Based Learning Course. Presentation at the 16th Annual TBLC Conference, Orlando, Florida, Mar 2-4.
- F. D. Mills, Jr., S. Nair, C. L. Butts, R. B. Sorensen and M. C. Lamb, and W. J. Pearce. 2016. Growing Degree Days, Harvest Dates, and Peanut Quality Attributes. Selected paper presented at the 48<sup>th</sup> Annual Meeting of the American Peanut Research and Education Society, Clearwater, FL, July 12-14, 2016.
  - Abstract: 2016 Proceedings of the American Peanut Research and Education Society, Inc. Forthcoming
- Mills, F. D., Jr., L. A. Wolfskill, S. Nair, and J. \*Robinson. 2016. A Pre-Post Perspective on Individual and Team Scores in a Team-Based Learning Course. Selected paper presented at the 62<sup>nd</sup> Annual Meeting of the North American Colleges and Teachers of Agriculture, Honolulu, HI, June 21-24, 2016.
  - Abstract: NACTA Journal. 60 (Supplement 1):30
- Nair, S., F. D. Mills, Jr., L. A. Wolfskill, and J. \*Robinson. 2016. Team Cohesiveness and Its Influence on Student Performance in Team-Based Learning. Selected paper presented at the 62<sup>nd</sup> Annual Meeting of the North American Colleges and Teachers of Agriculture, Honolulu, HI, June 21-24, 2016.
  - Abstract: NACTA Journal. 60 (Supplement 1):34
- Pavelock, D., S. Nair, S. \*Koehl, and B. \*\*Whitten. 2016. Student Recruitment: What is That REALLY Makes Them Say "Yes!"? Selected paper presented at the 62<sup>nd</sup> Annual Meeting of the North American Colleges and Teachers of Agriculture, Honolulu, HI, June 21-24, 2016.
  - Abstract: NACTA Journal. 60 (Supplement 1):57
- 7. Wolfskill, L.A., **S. Nair,** and F. D. Mills. 2016. Does Team-Based Learning Influence Grade Distribution? Selected paper presented at the 2016 Team-Based Learning Collaborative Conference, Albuquerque, NM, March 3-5, 2016.
- 8. Wolfskill, L. A., **S. Nair,** and F. D. Mills. 2016. Grade Inflation in Team-Based Learning: Must it be a Statistical Artifact? Selected paper presented at the 2016 Team-Based Learning Collaborative Conference, Albuquerque, NM, March 3-5, 2016.
- \*\*Barnes, K., J. Franken, L. A. Wolfskill, S. Nair, F. D. Mills, and D. Ullrich. 2016. White-tailed Deer Semen Auction Data: A Hedonic Analysis. Selected paper presented at the SAEA annual meetings, San Antonio, TX, February 6-9, 2016.

- Nair, S., R. B. Sorensen, F. D. Mills, Jr., T. W. \*Kelch and C. P. \*Martinez. 2015. An Economic Comparison of Three Irrigation Systems in a Crop Rotation including Peanuts. Selected paper presented at the 2015 Annual Meeting of the American Peanut Research and Education Society, Charleston, South Carolina, Jul 14-16, 2015.
  - Abstract: 25<sup>th</sup> APRES Proceedings 47: 39
- Wolfskill, L.A., B. D. \*\*Whitten, K. W. \*\*Ferrell, S. Nair, and F. D. Mills, Jr. 2015. Describing Students in a Team-Based Learning Context. Selected paper presented at the 2015 North American Colleges and Teachers of Agriculture (NACTA) Conference, Athens, Georgia, June 16-20, 2015.
  - Abstract: NACTA Journal 59 (supplement 1): 49
- Nair, S., S. Maas, and C. Wang. 2015. Optimal Temporal Water Allocation for Cotton in Texas High Plains. Selected paper presented at the 2015 World Environment and Water Resources Conference held in Austin, TX. May 17-21, 2015.
- \*\*Ferrell, K. W., S. Nair, L. A. Wolfskill, B. D. \*\*Whitten, and F. D. Mills, Jr. 2015. Influence of Assessment Criteria on Peer Evaluation Grade in Undergraduate Team-Based Learning Classrooms. Selected paper presented at the 2015 Team Based Learning Collaborative Conference, St. Petersburg, Florida, March 5-7, 2015.
- Nair, S., C. Wang, E. Segarra, J. Johnson, and R. Rejesus. 2015. Impact of Variable Rate Technology Adoption on Cotton Yield in Texas. Selected paper presented at the 2015 Beltwide Cotton Conference held in San Antonio, TX. January 5-8, 2015.
- 15. Nair, S., C. Wang, S. Maas, T. Knight, E. Segarra, J. Johnson, S. Mauget. 2013. Managing Weather Risk for Cotton in Texas High Plains with Optimal Temporal Allocation of Irrigation Water. Selected paper presented at the 2013 Agricultural and Applied Economics Association & Canadian Agricultural Economics Society annual meeting held in Washington, DC, August 4-6, 2013.
- 16. Nair, S., C. Wang, E. Segarra, J. Johnson, and M. Velandia. 2013. Impact of Efficient Irrigation Technologies on Precision Agriculture Adoption in Texas. Selected paper presented at the 2013 Beltwide Cotton Conference held in San Antonio, Texas.
- 17. Nair, S., S. Maas, C. Wang, E. Segarra, and J. Johnson. 2013. Optimal Irrigation Water Allocation for Deficit Irrigated Cotton. Selected paper presented at the 2013 UCOWR/NIWR Conference, Sustaining Water Resources and Ecological Functions in Changing Environments, Lake Tahoe, CA, June 11-13, 2013.
- 18. Liu, X., S. Nair, F. Lutzi, and C. Wang. 2013. Land Use Trends and Loss of Perennial Cover in the US Corn Belt States: Biomass Bioenergy Crops as a Multifunctional Alternative. Selected paper presented at the 44<sup>th</sup> Annual Conference of Mid-Continent Regional Science Association, Kansas City, MO, May 29-31, 2013.
- Attia, A., S. Nair, N. Rajan, G. Ritchie, A, Ibrahim, P. B. DeLaune, D. Hays, and Q. Xue. 2013. Modeling Cotton Growth and Yield Response to Different Irrigation Management Using Cotton2K. Selected paper presented at the Annual Meetings, Amer. Soc. Agronomy. November 3 - 6, Tampa, FL.

- 20. Nair, S., C. Wang, E. Segarra, J. Johnson, R. Rejesus, and M. Marra. 2012. Impact of the adoption of precision farming technologies on cotton yield in Texas. Selected paper presented at the 2012 Beltwide Cotton Conference, Orlando, Florida.
- 21. Nair, S., C. Wang, E. Segarra, E. Belasco, M. Velandia, and J. Reeves. 2011. Adoption of Variability Detection and Variable Rate Application Technologies by Cotton Farmers in Southern United States. Selected paper presented at the 2011 Agricultural and Applied Economics Association & Northeastern Agricultural and Resource Economics Association Joint Annual Meeting, Pittsburgh, PA. July 2011.
- 22. Nair, S., C. Wang, E. Segarra, E. Belsaco, M. Velandia, and J. Reeves. 2011. A multinomial logit analysis of the cotton precision farming technologies. Selected paper presented at the 2011 Beltwide Cotton Conference held in Atlanta, Georgia.
- 23. Nair, S., C. Wang, S. Maas, and E. Segarra. 2011. Optimal spatial and temporal allocation of irrigation water in Texas High Plains. Selected paper presented at the 2011 Beltwide Cotton Conference held in Atlanta, Georgia.
- Wang, C. and S. Nair. 2011. Optimal Irrigation Intensity and Extensity under Deficit Water Supply. Selected paper presented at the 2011 Canadian Society of Agricultural Economics & Western Agricultural Economics Association Joint meeting. Banff, Canada. July 2011.
- 25. Nair, S., C. Wang, E. Segarra, and J. Reeves. 2010. Adoption of precision agriculture practices by cotton growers in Texas. Selected paper presented at the 2010 Beltwide Cotton Conference, New Orleans, Louisiana.
- 26. Nair, S., S. Maas, and C. Wang. 2009. Evaluating the influence of weather on yield and profitability of cotton under deficit irrigation. Selected paper presented at the International Annual Meetings of American Society of Agronomy, Crop Science Society of America, and Soil Science Society of America. 1-5 November, 2009. Pittsburgh, PA.
- 27. Nair, S., and S. Maas. 2008. Evaluating economic impact of various irrigation strategies for cotton. Selected paper presented at the International Annual Meetings of American Society of Agronomy, Crop Science Society of America, and Soil Science Society of America. 5-9 October, 2008. Houston, TX.

#### Selected Poster Presentations in Conferences (\* Undergraduate Student, \*\* Graduate Student)

- 1. **Nair, S.,** F. D. Mills, Jr., L. A. Wolfskill and D. Chen. 2017. Agricultural Land Use Trends and Drivers in the Northern and Southern High Plains of Texas. Poster presentation at the 2017 Southern Agricultural Economics Association Annual Meeting, Mobile, Alabama, Feb 4-7.
- \*McKnight, B., S. Nair, L. A. Wolfskill, and F. D. Mills, Jr. 2017. Optimal Crop Choice and Water Allocation in Texas High Plains. Poster presentation at the 2017 Beltwide Cotton Conferences Proceedings, Cotton Economics and Marketing Conference, Dallas, Texas, Jan 4-6.

- Nair, S., F. D. Mills, Jr. and L. A. Wolfskill. 2017. Agricultural Land Use Change in the US Cotton Belt. Poster presentation at the 2017 Beltwide Cotton Conferences Proceedings, Cotton Economics and Marketing Conference, Dallas, Texas, Jan 4-6.
- Pavelock, D., S. Nair, S. \*Koehl, and D. Ulrich. 2016. Is Success in Leadership Development Events Simply a Number Game? Selected poster presented at the 62<sup>nd</sup> Annual Meeting of the North American Colleges and Teachers of Agriculture, Honolulu, HI, June 21-24, 2016.
  - Abstract: NACTA Journal. 60 (Supplement 1):147
- Wolfskill, L. A., S. Nair, and F. D. Mills, Jr. 2016. Innovative Use of GoogleDocs<sup>™</sup> to Engage High School and University Students in Experiential Learning using a Simulation Game. Selected poster presented at the 62nd Annual Meeting of the North American Colleges and Teachers of Agriculture, Honolulu, HI, June 21-24, 2016.

Abstract: NACTA Journal. 60 (Supplement 1):115

- 6. F.D. Mills, **S. Nair**, and L. A. Wolfskill. 2016. Group Tests and the Tragedy of the Commons. Selected poster presented at the 2016 Team-Based Learning Collaborative Conference, Albuquerque, NM, March 3-5, 2016.
- 7. Nair, S. and S. Amosson. 2016. Estimating the Value of Irrigation Scheduling. Selected poster presented at the SAEA annual meetings, San Antonio, TX, February 6-9, 2016.
  - Abstract and Poster: *Published in AgEcon Search. Available at* <u>http://purl.umn.edu/230041</u>
- 8. \*\*Laqua, K., S. Nair, and F. D. Mills, Jr. 2016. Shaping Future Agriculturalists: Does Agricultural Literacy and Demographic Background Influence Student Views about Farm Policy? Selected poster presented at the SAEA annual meetings, San Antonio, TX, February 6-9, 2016.
  - Abstract and Poster: Published in AgEcon Search. Available at <a href="http://purl.umn.edu/229954">http://purl.umn.edu/229954</a>
- 9. Nair, S., F. D Mills, K. \*Powers, and B. \*Kresta. 2016. Land Use for Cotton in Corn Dominated Northern Plains of Texas: Trends and Drivers. Selected poster presented at the 2016 Beltwide Cotton Conference. New Orleans, LA. January 5-7, 2016.
- Nair, S., F. D Mills, B. \*Kresta, and K. \*Powers. 2016. Drivers of Land Use Change in Southern High Plains of Texas. Selected poster presented at the 2016 Beltwide Cotton Conference. New Orleans, LA. January 5-7, 2016.
- 11. **Nair, S**. L. A. Wolfskill, A. \*Smith, and B. \*Strnadel. 2016. Comparison of Productivity and Profitability Trends of Major Crops in Panhandle District of Texas. Selected poster presented at the 2016 Beltwide Cotton Conference. New Orleans, LA. January 5-7, 2016.
- Nair, S. L. A. Wolfskill, C. \*Burton, K. \*Reck and K. \*Weyand. 2016. Crop Yield and Profitability Trends in Texas South Plains. Selected poster presented at the 2016 Beltwide Cotton Conference. New Orleans, LA. January 5-7, 2016.

- Rajan, N., A. Attia, and S. Nair. 2016. Lint Yield, Water Use Efficiency, and Economic Returns of Cotton in the West and South-East Texas Regions. Selected poster presented at 2016 Beltwide Cotton Conference, New Orleans, LA, January 5-7, 2016.
- 14. \*\*Whitten, B.D., L.A. Wolfskill, K. W. \*\*Ferrell, S. Nair, and F. D. Mills, Jr. 2015. Preliminary Measurement of Student Receptivity to Team-Based Learning in an Undergraduate Agricultural Business Program. Poster presented at the 2015 Team Based Learning Collaborative Conference, St. Petersburg, Florida, March 5-7, 2015.
- 15. Mills, F. D. Jr., S. Nair, and K. W. \*\*Ferrell. 2015. Consequence of Using Grade Point Average as a Criteria in Team Formation. Poster Presentation at the 14th Annual TBLC Conference, St. Petersburg, Florida, March 5-7, 2015.
- 16. \*\*Ferrell, K. W., S. Nair, L.A. Wolfskill, B. D. \*\*Whitten, and F. D. Mills, Jr. 2015. Influence of Assessment Criteria on Peer Evaluation Grade in Undergraduate Team-Based Learning Classrooms. Poster presented at the 2015 Team Based Learning Collaborative Conference, St. Petersburg, Florida, March 5-7, 2015.
- 17. Nair, S., C. Wang, E. Segarra, Y. Wang, and J. Johnson. 2014. Precision Agriculture Adoption by Texas Cotton Producers: Trends and Drivers. Poster presented at the 2014 Beltwide Cotton Conference, New Orleans, LA.
- 18. Attia, A, **S. Nair**, N. Rajan, and G. Ritchie. 2014. Optimization of deficit irrigation using the Cotton2K crop growth simulation model. Poster presented at 2014 Beltwide Cotton Conference, New Orleans, LA.
- 19. Modala, N. R., S. Ale, S. Nair, C. Munster, N. Rajan. 2012. Evaluation of DSSAT CROPGRO- Cotton Model for the Texas Rolling Plains Region and Simulation of Management Practices under Future Climate Scenarios. Poster presented at the Annual International Meeting of American Society of Agricultural and Biological Engineers, Dallas, TX. July 2012.
- 20. Nair, S., C. Wang, E. Segarra, and J. Reeves. 2010. Adoption of precision agriculture practices by cotton growers in Texas. Selected poster presented at the 2010 Beltwide Cotton Conference, New Orleans, Louisiana.

#### **Other Professional Presentations**

- \*Jones, B., D. \*Jackson, A. \*Johnson, L.A. Wolfskill, T. Pannkuk, and S. Nair. 2016. Cost of Overwatering: Analysis of Water Use in Huntsville. Selected paper presented at the 3<sup>rd</sup> Annual Woodlands Center Research Symposium, The Woodlands, TX, April 9, 2016.
  - Undergraduate research
  - Abstract: Proceedings of the 3<sup>rd</sup> Annual The Woodlands Center Research Symposium. Page 20-21.
- \*Long, J., R. \*Herrington, C. \*Krahn, F. D. Mills, and S. Nair. 2016. Changes in Recommended Planting Dates and its Impact on Peanut Quality Attributes. Selected paper presented at the 3<sup>rd</sup> Annual Woodlands Center Research Symposium, The Woodlands, TX, April 9, 2016.
  - Undergraduate research
  - Abstract: Proceedings of the 3<sup>rd</sup> Annual The Woodlands Center Research Symposium. Page 22.

- \*Powers, K., B. \*Kresta, S. Nair, and F. D. Mills. 2016. Comparison of Land Use Change Drivers between the Corn-Dominated Northern High Plains and the Cotton-Dominated Southern High Plains of Texas. Selected paper presented at the 3<sup>rd</sup> Annual Woodlands Center Research Symposium, The Woodlands, TX, April 9, 2016.
  - Undergraduate research
  - Abstract: Proceedings of the 3<sup>rd</sup> Annual The Woodlands Center Research Symposium. Page 24.
- \*Strnadel, B., A. \*Smith, S. Nair, and L.A. Wolfskill. 2016. Does Productivity Translate to Profitability? The Case of the Texas Northern High Plains. Selected paper presented at the 3<sup>rd</sup> Annual Woodlands Center Research Symposium, The Woodlands, TX, April 9, 2016.
  - Undergraduate research
  - Abstract: Proceedings of the 3<sup>rd</sup> Annual The Woodlands Center Research Symposium. Page 25.
- \*Robinson, J., F. D. Mills Jr., L. A. Wolfskill, and S. Nair. 2016. The Effects of Team Instruction on Scores in a Team-Based Learning Course. Poster presentation at the SHSU Undergraduate Research Symposium, Apr 23, 2016.
  - Undergraduate Research
  - Abstract: Proceedings of the Ninth Annual SHSU Undergraduate Research Symposium
- 6. \*Burton, C., K. \*Reck, K. \*Weyand, S. Nair, and L. A. Wolfskill. 2016. Historical Productivity Increase of Major Crops in the Southern High Plains of Texas. Selected poster presented at the 6<sup>th</sup> Annual Agricultural Consortium of Texas Research Symposium, Stephenville, TX, March 31, 2016 and the 3<sup>rd</sup> Annual The Woodlands Center Research Symposium, The Woodlands, TX, April 9, 2016.
  - Undergraduate Research
  - Abstract: Proceedings of the 6<sup>th</sup> Annual Agricultural Consortium of Texas Research Symposium. Page 28.
  - Abstract: *Proceedings of the 3<sup>rd</sup> Annual The Woodlands Center Research Symposium. Page 2.*
- \*Surman, A., C. \*Smith, N. \*Weisiger, M. Anderson, and S. Nair. 2016. Economics of Meat Quality. Selected poster presented at the 6<sup>th</sup> Annual Agricultural Consortium of Texas Research Symposium, Stephenville, TX, March 31, 2016 and the 3<sup>rd</sup> Annual The Woodlands Center Research Symposium, The Woodlands, TX, April 9, 2016.
  - Undergraduate Research
  - Abstract: Proceedings of the 6<sup>th</sup> Annual Agricultural Consortium of Texas Research Symposium. Page 20.
  - Abstract: Proceedings of the 3<sup>rd</sup> Annual The Woodlands Center Research Symposium. Page 35.

- \*Choiniere, T., H. \*Flake, M. \*Schroeder, K. Stutts, and S. Nair. 2016. Least Cost Feed Formulation for Feeder Cattle: A Linear Programming Approach. Selected poster presented at the 3<sup>rd</sup> Annual The Woodlands Center Research Symposium The Woodlands, TX, April 9, 2016.
  - Undergraduate Research
  - Abstract: *Proceedings of the 3<sup>rd</sup> Annual The Woodlands Center Research Symposium. Page 28.*
- \*Howell, A., B. \*Hughes, S. \*Cosper, F. D. Mills, and S. Nair. 2016. Impact of Harvest Dates on Peanut Quality Attributes. Selected poster presented at the 3<sup>rd</sup> Annual The Woodlands Center Research Symposium The Woodlands, TX, April 9, 2016.
  - Undergraduate Research
  - Abstract: Proceedings of the 3<sup>rd</sup> Annual The Woodlands Center Research Symposium. Page 34.
- 10. \*Najvar, M., C. \*Staton, D. \*Pugh, S. Nair, and F. D. Mills. 2016. Agricultural Land Use Change in Texas: Trends and Drivers. Selected poster presented at the 3<sup>rd</sup> Annual The Woodlands Center Research Symposium The Woodlands, TX, April 9, 2016.
  - Undergraduate Research
  - Abstract: Proceedings of the 3<sup>rd</sup> Annual The Woodlands Center Research Symposium. Page 34.
- \*\*Barnes, K., F. D. Mills, Jr., S. Nair, L.A. Wolfskill, J. Franken, and D. Ulrich. 2016. What's the Point (Worth): A Hedonic Analysis of Whitetail Semen Auction Data. Selected poster presented at the 6<sup>th</sup> Annual Agricultural Consortium of Texas Research Symposium, Stephenville, TX, March 31, 2016.
  - Won first place in the poster competition
  - Abstract: Proceedings of the 6<sup>th</sup> Annual Agricultural Consortium of Texas Research Symposium. Page 1.
- \*Jones, B., D. \*Jackson, A. \*Johnson, L.A. Wolfskill, T. Pannkuk, and S. Nair. 2016. Cost of Overwatering: Analysis of Water Use in Huntsville. Selected poster presented at the 6<sup>th</sup> Annual Agricultural Consortium of Texas Research Symposium, Stephenville, TX, March 31, 2016.
  - Undergraduate Research
  - Abstract: Proceedings of the 6<sup>th</sup> Annual Agricultural Consortium of Texas Research Symposium. Page 6.
- \*Koehl, S., B. \*\*Whitten, D. Pavelock, and S. Nair. 2016. Student Recruitment: What is That REALLY Makes Them Say "Yes!"? Selected poster presented at the 6<sup>th</sup> Annual Agricultural Consortium of Texas Research Symposium, Stephenville, TX, March 31, 2016.
  - Undergraduate Research
  - Abstract: Proceedings of the 6<sup>th</sup> Annual Agricultural Consortium of Texas Research Symposium. Page 7.

- 14. \*Koehl, S., B. \*\*Whitten, D. Pavelock, and S. Nair. 2016. Is Success in Leadership Development Events Simply a Number Game? Selected poster presented at the 6<sup>th</sup> Annual Agricultural Consortium of Texas Research Symposium, Stephenville, TX, March 31, 2016.
  - Undergraduate Research
  - Abstract: Proceedings of the 6<sup>th</sup> Annual Agricultural Consortium of Texas Research Symposium. Page 7.
- 15. \*\*Laqua, K., S. Nair, and F. Mills, Jr. 2016. A Longitudinal Study of Agricultural Literacy and Farm Policy Perspectives among Undergraduate Students in Agricultural Sciences. Selected poster presented at the 6<sup>th</sup> Annual Agricultural Consortium of Texas Research Symposium, Stephenville, TX, March 31, 2016.
  - Won third place in the poster competition
  - Abstract: Proceedings of the 6<sup>th</sup> Annual Agricultural Consortium of Texas Research Symposium. Page 9.
- 16. \*Long, J., R. \*Herrington, C. \*Krahn, F. D. Mills, and S. Nair. 2016. Changes in Recommended Planting Dates and its Impact on Peanut Quality Attributes. Selected poster presented at the 6<sup>th</sup> Annual Agricultural Consortium of Texas Research Symposium, Stephenville, TX, March 31, 2016.
  - Undergraduate Research
  - Abstract: Proceedings of the 6<sup>th</sup> Annual Agricultural Consortium of Texas Research Symposium. Page 11.
- 17. \*Strnadel, B., A. \*Smith, S. Nair, and L.A. Wolfskill. 2016. Changes in Recommended Planting Dates and its impact on Peanut Quality Attributes. Selected poster presented at the 6<sup>th</sup> Annual Agricultural Consortium of Texas Research Symposium, Stephenville, TX, March 31, 2016.
  - Undergraduate Research
  - Abstract: Proceedings of the 6<sup>th</sup> Annual Agricultural Consortium of Texas Research Symposium. Page 19.
- 18. \*Kelch, T. W., C. P. \*Martinez. S. Nair, R. B. Sorensen, and F. D. Mills, Jr., 2015. An Economic Comparison of Shallow Subsurface Drip, Deep Subsurface Drip, and Center Pivot Irrigation Systems in South Georgia for a Repeated Five-Year Crop Rotation. Poster presentation at the 8th Annual Undergraduate Research Symposium, Sam Houston State University. April 25, 2015.
  - Abstract: Proceedings of the Undergraduate Research Symposium
  - Proceedings of the 5<sup>th</sup> Annual Agricultural Consortium of Texas Research Symposium. Page 3.
- 19. \*\*Laqua, K. A., S. Nair, F. D. Mills, Jr., and K. W. Ferrell. 2015. Shaping Future Agriculturalists: Does Agricultural Literacy and Demographic Background Influence Student Views about Farm Policy? Poster Presentation at the Agricultural Consortium of Texas 5th Annual Research Symposium, San Marcos, Texas, April 2, 2015.
  - Proceedings of the 5<sup>th</sup> Annual Agricultural Consortium of Texas Research Symposium. Page 4.

- 20. Nair, S. and S. Amosson. Corn production in the Texas High Plains: Gains in productivity and water use efficiency. Presentation given at the Texas Corn Producers Board project's advisory committee meeting. Dumas, Texas. July 2014.
- 21. Nair, S. 2012. The Impact of Climate Change on Resource Use, Farm Profitability, and Cropping Systems. Presentation given at the Economics breakout group of Agricultural Model Inter-comparison and Improvement Project (AgMIP) North America Regional Workshop. Ames, Iowa. September 2012.
- 22. Nair, S. 2011. Simulation Models in Agricultural Research. Invited lecture for the monthly seminar in Texas AgriLife Research and Extension Center at Vernon, TX. August 2011.
- 23. Nair, S. 2011. Biological Models in Applied Economics Research. Invited lecture in Agricultural Economics Graduate Students Association's lecture series. Texas Tech University. Lubbock, TX. July 2011.
- 24. Nair, S., C. Wang, S. Maas, and E. Segarra. 2011. Spatial Allocation of Irrigation Water in Center Pivot Irrigated Cotton. Presented at the 2011 CERI/CIRC Annual Research and Outlook Symposium, Lubbock, TX. March 2011.

# Grants: Funded

- Schnell, R., T. Provin, J. Mowrer, N. Rajan, M. Bagavathiannan, S. Nair. 2017. Developing Organic Cropping Systems for Grain Production in Texas. Southern SARE. \$297,836.00. Co-PI. PI for SHSU portion.
- Rajan, N., M. Bagavathiannan, R. Schnell, S. Nair, and D. Constance. 2016. Pathway to Organic: A Research, Extension, and Education Project in the Southcentral Texas on Transitioning Cropping Systems. \$ 475,000.00. USDA/NIFA. Co-PI. PI for the SHSU portion.
- Cui, S., Q. Wu, N. Rajan, S. Nair, D. Pavelock, and M. Wade. 2015. Integrating Agricultural Remote Sensing, Landscape Flux Measurements, and Agroecosystem Modeling in Research and Teaching across Different Institutions in the Southern U.S. \$714,023.00. USDA/NIFA. Co-PI. PI for the SHSU portion.
- 4. **Nair, S.** 2015. Optimal water allocation: Simulating preliminary data with DSSAT. \$14,398.00. Enhancement Research Grant, Sam Houston State University.
- Mills, F. D. Jr., H. S. Bender, A. McCubbins, S. Nair, L. A. Wolfskill., and L.L. Orgler. 2015. Team Based LearningTM (TBL) - A Standard for Optimal Development of the Flipped Classroom. \$2,000.00. Co-investigator. APLU Academic Programs Section Innovative Teaching Award.

# Grants: Pending

- Rajan, N. R. Schnell, M. Bagavathiannan, J. Jiffon, S. Cui, S. Jagadamma, W. Batchelor, D. Rajagopal. S. Nair, and D. Constance. 2017. Innovative and Scalable Low-nitrifying Agricultural Systems to Enhance the Sustainability and Resilience of Food, Energy, and Water Systems. NSF. \$2,000,000.00. Co-PI. PI for SHSU portion.
- Bagavathiannan, M., N. Rajan, J. Mowrer, T. Isakeit, M. Way, R. Schnell, S. Knezevic, J. Norsworthy, J. Ross, C. Reberg-Horton, Wes Everman, S. Nair, D. Constance, and J. Shade. 2017. Developing sustainable and profitable strategies for organic grain production in the US. NIFA-OREI. \$2,000,000.00. Co-PI. PI for SHSU portion.

- Rajan, N., R. Schnell, M. Bagavathiannan, B. McCarl, L. Riberra, D. Cope, R. Karthikeyan, J. Jiffon, S. Cui, D. Fromme, S. Jagadamma, S. Mentreddy, M. Mulavaney, S. Nair, and D. Constance. 2016. Efficient land use and resilient farming systems under changing climate through integration of low-nitrifying Brachiaria forage in the Southern U.S. USDA NIFA CAP grant. \$4,000,000.00. Co-PI. PI for SHSU portion.
- 4. Nair, S. 2016. Modeling Land Use Change in Texas Cotton Belt. \$4,951.00. Faculty Research Grant. Sam Houston State University. PI.

## Grants: Non-funded

- Rajan, N., M. Bagavathiannan, R. Schnell, G. Sword, and S. Nair. 2016. Developing Integrated Systems for Transforming Cereal Cropping Systems in Texas using Short-duration Multipurpose Legumes. \$500,000.00. USDA/NIFA. SHSU portion \$54,088.00. CO-PI. PI for SHSU portion.
- Stutts, K.J., J.L. Leatherwood, S. Nair, J.R. Franken, and L.M. Miller. 2015. Beginning Farmer and Rancher Development Program for Limited Resource Producers. \$988,790.00. USDA/NIFA. Co-PI.
- Baker, M., C. Meyers, S. Burris, T. Davis, G. Cummings, R. James, D. Lawer, C. Fullerton, and **S. Nair**. 2015. Neurocognitive Research Approaches for Deeper Human Understanding in the Food and Agricultural Sciences. \$745,561.00. USDA/NIFA. Co-PI. PI for SHSU portion.
- Rajan, N., D. Auld, S. Angadi, and **S. Nair**. 2014. Improving cropping system choices, production decision making, and ecosystem services within various water resource regions in the Southwestern United States. \$500,000.00. NIFA-AFRI Program. Co-PI.
- Nair, S., C. Wang, F. Mills, and N. Rajan. 2014. Economic modeling of agricultural land use change in the Cotton Belt region of Texas incorporating climate variability and spatio-temporal heterogeneity. \$499,702.00. NIFA-AFRI Program. P D.
- Wang, C., S. Nair, S. Maas, N. Rajan, G. Ritchie, J. Johnson, E. Segarra, and K. Hayhoe. 2013. Adapting to climate change with optimal temporal allocation of irrigation water for cotton. \$925,971.00. NIFA- Climate change. Co-PI.
- Maas, S., N. Rajan, C. Wang, **S. Nair**, and D. Doerfert. 2012. Development, evaluation, and demonstration of site-specific nitrogen management tool. \$618,502.00. Texas State Soil and Water Conservation Board. Co-PI.

#### SERVICE ACTIVITIES Professional Associations

- Agricultural and Applied Economics Association
- Southern Agricultural Economics Association
- North American Colleges and Teachers of Agriculture
- American Society of Agronomy
- Soil Science Society of America
- Crop Science Society of America

# **Reviewing** Activities

Reviewer, for Journal of Agricultural and Applied Economics, Journal of Agribusiness, Agronomy Journal, Texas Journal of Agriculture and Natural Resource, Hort Technology, and IBM Journal of Research and Development

Name of the Student	Degree	Role	Department	Committee Chair
*Korbyn Breckon	M.S.	Committee Member	Dept. of Agricultural Sciences and Engineering Technology. SHSU.	Dr. Bobby Lane
Kelsey Powers	M.S.	Committee Member	Dept. of Agricultural Sciences and Engineering Technology. SHSU.	Dr. Foy Mills
Jack Aldridge	M.S.	Committee Member	Dept. of Agricultural Sciences and Engineering Technology. SHSU.	Dr. Foy Mills
Tyler Yancey	M.S.	Committee Member	Dept. of Agricultural Sciences and Engineering Technology. SHSU.	Dr. Mark Anderson
*Travis Mccallister	M.S.	Committee Member	Dept. of Agricultural and Applied Economics, Texas Tech University	Dr. Tom Knight

Graduate Student Advising (\* Thesis option)

# CONTINUING PROFESSIONAL EDUCATION

# a. <u>Professional Conferences Attended (Last 2 years)</u>

#### 2017

- 1. Beltwide Cotton Conference. January 4-6, 2017. Dallas, TX.
- 2. Annual Meeting of Southern Agricultural Economics Association. February 4-7, 2017. Mobile, AL.

#### 2016

- 1. Beltwide Cotton Conference. January 5-7, 2016, New Orleans, LA.
- 2. Annual Meeting of Southern Agricultural Economics Association. San Antonio, TX, February 6-9, 2016. Session Moderator.
- 3. 6<sup>th</sup> Annual Agricultural Consortium of Texas Research Symposium, Stephenville, TX, March 31, 2016.
- 4. 3<sup>rd</sup> Annual The Woodlands Center Research Symposium The Woodlands, TX, April 9, 2016. Session Moderator.
- 5. CHSS Teaching Conference, Sam Houston State University.

# b. <u>Professional Developmental Trainings</u>

- 1. May 6, 2016. 2016 Leadercast. It is a full day of leadership training and this year's theme was to seek out challenges and risk your influence to improve those around you. Giant Impact. (Credit 5.00 hours).
- 2. May 8, 2015. 2015 Leadercast. It is a full day of leadership training and this year's theme was how to be a brave leader. Giant Impact. (Credit 5.25 hours).
- 3. March 4, 2015. Project Based Learning. Training program by PACE, Sam Houston State University (Credit: 3 hours)