

Emails:
avat.shekoofa@gmail.com
ashekoof@utk.edu
Cell phone: +1 919 758 4972

Avat Shekoofa, Ph.D.

- Education**
- Ph.D in Agronomy** (2007-2010)
Shiraz University College of Agriculture, Shiraz, Iran
Title of dissertation: Kernel water content and final dry weight of maize crop as affected by source/sink ratio (written and presented in English)
 - Visiting Time** (2009-2010)
Facultad de Ciencias Agrarias Universidad Nacional de Rosario, Campo Exp. Villarino, Zavalla S2125ZAA, Prov. De Santa Fe, Argentina
Research title: Evaluating corn kernels quality under leaves and husks defoliation.
 - M.Sc in Agronomy** (2003-2005)
Shiraz University College of Agriculture, Shiraz, Iran
Title of thesis: Effect of water stress, plant density and plant growth regulator on growth and yield of maize (*Zea mays* L.) (written and presented in English)
 - B.Sc in Agriculture Engineering of Crop Production and Plant Breeding** (1998-2001)
Buali-Sina Agriculture University, Hamedan, Iran
- Research Interests**
- Current research at University of Tennessee, Plant Sciences Dept. centers on developing an active and nationally recognized program in crop physiology with a focus on plant water saving potential.
 - Physiological response of crops to environmental stresses.
 - Bioinformatics approaches define critical crop physiological traits in a process-oriented crop model.
- Research Experiences**
- **Assistant Professor Crop Physiologist-Water Stress and Irrigation** (October 2016 to present)
University Tennessee Knoxville, Plant Sciences Dept., Jackson, West TN, USA
 - **Post-doctoral research scholar** (2012 to 2016)
NC State University (NCSU), Crop and Soil Sciences Dept. Raleigh, NC, USA
 - **Post-doctoral research scholar** (Summer 2012)
Virginia Tech University (research collaboration with NCSU), Tidewater Agricultural Research and Extension Center, Suffolk VA, USA
 - **Reviewed manuscripts** (2012 to present)
for: Field Crops Research, Agronomy Journal, Molecular Biotechnology, Journal of Agricultural Science and Technology, Computer in Biology and Medicine, Environmental and Experimental Botany, PLOS ONE
 - **Research collaboration grants** (2012 to present)
Pioneer maize physiology grant, Syngenta turfgrass grant, Peanut foundation grant, NC peanut growers association (NCPGA) grant, Cotton Inc. Tennessee State Support, Tennessee Soybean Promotion Board (TSPB), The United Soybean Board (USB), Mid-South Soybean Board (MSSB), USDA-NIFA, Tennessee Corn Promotion Board (TCPB)
- Awards**
- **ASA-CSSA-SSSA International Annual Meeting, 2019 ASA student poster competition award, 3rd place.** Sam Purdom: Purdom, S., A. Shekoofa, A.T. McClure, B. Leib. "Variable rate irrigation scheduling for soybean plants: Large plot evaluation". San Antonio, TX, November 2019.
 - **ASA-CSSA-SSSA International Annual Meeting, 2019 ASA student poster competition award, 2nd place.** Kendall Sheldon: Sheldon, K., A. Shekoofa, E.R. Walker. "Physiological screening for limiting transpiration rate among industrial hemp (*Cannabis sativa* L.) Cultivars". San Antonio, TX, November 2019.
 - **ASA-CSSA-SSSA International Annual Meeting, 2019 ASA student poster competition award, 1st place.** Shikha Singh: Singh, S., S. Jagadamma, A. Shekoofa, M. Mayes. "The influence of moisture content variation on microbial mineralization of soil organic carbon". San Antonio, TX, November 2019.
 - **UTK Office of Research and Engagement (UTK ORE) Federal, Corporate, and Foundation Opportunity Fund** for travel assistance to attend Fall 2019 NSF Grant Conference. Boston, November 2019.
 - **TSPB Travel award**, to attend 6th plant genomics and gens editing congress: USA 3rd partnerships in biocontrol, biostimulants and microbiome supported by TSPB. Philadelphia, October 2018.
 - **Smith international sustainable agriculture, UTIA's Travel award**, to travel to Universidad Zamorano, Honduras to help with international communication between UTIA and Universidad Zamorano and encourage study abroad/exchange students with Smith international sustainable agriculture, UTIA. September 2018.
 - **AgResearch Travel award**, to attend and present research results at professional meetings, August 2018.
 - **NASA Travel award**, for 7 qualified research proposals on cotton suitability in the U.S, to support their travel expenses to Kennedy Space Center, FL for the final pitch. April 2018.
 - **Bailey Award 2017 Nomination**, T.R Sinclair, A. Shekoofa, T.G Isleib, M. Balota, Z. Hou. 2017. Identification of virginia-type Peanut Genotypes for Water-Deficit Conditions Based on Early Stomatal Closure with Soil Drying. Awarded by *American Peanut Research and Education Society Inc. (APRES)*.

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- **Twelve months' post-doctoral fellowship** from **IDB** (special funds; merit scholarship program for agriculture research from IDB) January 2012 – December 2012. Travel to NC State University. US. Advisor: T. R. Sinclair.
- **Travel grant** for qualified applicant of the **Post-doc/Associate scientist (Stress resilient maize for South Asia, Ref. 2011/23) position on 6 January, 2012 Centro Internacional de Mejoramiento de Maíz y Trigo (CIMMYT)-Asia Regional Maize Program, International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), India**
- **Travel grant award**, to attend the 11th Asian Maize Conference. Nov. 7-11, 2011. CIMMYT, Nanning, China.
- **The best presentation award** “Effect of Water Stress, Plant Density and Plant Growth Regulator (Ethephon) on Growth and Yield of Maize (*Zea Mays* L.),” in The 9th Iranian Crop Sciences Congress, 2006, Tehran-Iran, Aug 27-29, 2006.

Mentoring- Teaching Experiences

Mentoring

- Mentoring two graduate students, University of Tennessee, Plant Sciences Dept. (May 2019 to present)
- Co-mentoring four graduate students, University of Tennessee (September 2018 to present)
- Mentoring eight-part time students (B.S. Jackson State Community College, B.S. UT Martin, online M.S. UT Martin and an exchange international student) (September 2017 to present)
- Mentored a visiting scientist from Shahid Beheshti University (June 2018-January 2019)
- Mentored an exchange visiting B.S. student, from, Zamorano Universidad Honduras (April 2018 to December 2018)
- Mentored a postdoc research scholar (January 2018 to October 2018)
- Mentored a visiting scientist from Southern China University (December 2016 to August 2017)
- Mentored two graduate students-master and PhD degrees, Crop Sci Dept. of NCSU (2013 to 2016)
- Mentored two postdoc research scholars, Crop Sci Dept. of NCSU (2013 to 2016)
- Mentored five visitor PhD students and scientists, Crop Sci Dept. of NCSU (2014 to 2016)

Teaching

- Invited lecture for **PLSC 442 Crop Adaption & Ecology Course**, UT Martin, Martin, USA (18 undergrad students) (February 2020)
- Invited lecture for **PLSC 250**, UTIA-CASNR, Knoxville, Plant Science Department, Class: **World Food and Fiber Crops** (38 undergraduate students) (April 2019)
- Invited lecture for a graduate class (M.S. and Ph.D.), UT Entomology and Plant Pathology Department, **abiotic-biotic session** in Jackson, USA (10 students) (June 2018)
- Invited lecture for **PLSC 250**, UTIA-CASNR, Knoxville, Plant Science Department, Class: **World Food and Fiber Crops** (30 undergraduate students) (April 2018)
- Invited lecture for **the International Fertilizer Development Center (IFDC)**, Milan, USA (30 scientists from different countries) (August 2017)
- Invited lecture for **the Agroecology Field Course by UT Martin**, Milan, USA (25 undergrad students from four states) (July 2017)
- Invited lecture for **STS 323, World Population and Food Prospects**, NCSU, USA (a large class, 200 undergrad students) (November 2015)
- Invited lectures for **CS 714, Crop Physiology: Plant Response to Environment** in NCSU, USA (graduate class-15 students) (November 2015)
- The **Certificate in Teaching Techniques** awarded by NCSU (2013 to 2015)
- Teacher assistant (TA) for **CS111, Field Crop Technology** in NCSU, Raleigh, USA (2014)
- Trained a Ph.D. student and technician, **a novel experimental technique on soybean-aquaporins (AQPs) inhibitor** test at University of Georgia, USA (April 2014)
- Trained technicians, **a specific technique on maize- aquaporins (AQPs) inhibitor** test at DuPont Pioneer, IOWA, USA (April 2014)
- Teacher assistant (TA), 30 undergraduate students, **Cereal Production and Crop Physiology courses** in Department of Crop Production and Plant Breeding, Shiraz University, Shiraz, Iran (2003-05 & 2007-09)
- Teaching, 30 undergraduate students **Introduction to Statistical Science in Agriculture and English for Agriculture** in University of Applied Science and Technology, Kurdistan, Iran (2006-2007)
- Teaching, 50 undergraduate students **Introduction to Statistical Science in Agriculture and Principles of Agronomy** for undergraduate students in Department of Agronomy, Kurdistan University, Kurdistan, Iran (2005-2006)

Language and Computer Skills

- Kurdish & Persian (Native speaker)
- English (Fluent)
- Spanish (Intermediate)
- Professional software: **SAS** (statistical software), **JMP**, **MINITAB**, **MSTATC**, **SPSS**, **SPSS Clementine Client**, **RapidMiner 5**, **Prism 7**.

- **Shekoofa, A.**, S.Safikhan, J.L. Snider, T.B. Raper, F.M. Bourland. 2019. "Variation in stomatal conductance responses of cotton cultivars to high vapor pressure deficit under controlled and rainfed environment" Submitted. *Journal of Agronomy and Crop Science*.
- J.M. Devi, T.R. Sinclair, V.Vadez, **A. Shekoofa**, N. Puppala. 2019. "Phenotyping strategies to enhance peanut drought tolerance and molecular markers for crop improvement" A book chapter, Springer. Vol. II pp 131-143. https://doi.org/10.1007/978-3-319-99573-1_8
- Beseli, A., **A. Shekoofa**, A. Mujahid, T.R. Sinclair. 2019. "Temporal water use by two maize lines differing in leaf osmotic potential" published. *Crop Science*. <https://doi.org/10.1002/csc2.20062>
- Pradhan, D., **A. Shekoofa**, T.R. Sinclair. 2019. "Temperature effect on peanut (*Arachis hypogaea* L.) transpiration response to vapor pressure deficit and its recovery" published. *Journal of Crop Improvement*. <https://doi.org/10.1080/15427528.2018.1552900>
- **Shekoofa, A.**, T.R. Sinclair. 2018. "Aquaporin Activity to Improve Crop Drought Tolerance". *Cells*, 2018. <https://doi.org/10.3390/cells7090123>
- Sinclair, T.R., **A. Shekoofa**, T.G. Isleib, M. Balota, H. Zhang. 2018. "Identification of Virginia-Type Peanut Genotypes for Water-Deficit Conditions Based on Early Decrease in Transpiration Rate with Soil Drying". *Crop Science*, 2018. doi:10.2135/cropsci2018.05.0293
- Sinclair, T.R., D. Pradhan, **A. Shekoofa**. 2018. "Update on Inheritance of Limited-Transpiration Trait in Peanut" published. *Journal of Crop Improvement*, 2018. <https://doi.org/10.1080/15427528.2017.1420000>
- **Shekoofa, A.**, T.R. Sinclair, C. Aninbon, C.C. Holbrook, T.G. Isleib, P. Ozias-Akins, Y. Chu "Expression of the limited transpiration trait under high vapor pressure deficit in peanut RIL populations: Runner and Virginia type" published, *Journal of Agronomy and Crop Science*, 2017, DOI: 10.1111/jac.12204
- **Shekoofa, A.** and S. Choudhary "Plant Water-Conservation Traits to Increase Crop Yields: Case Studies, Maize Chapter" A book chapter, *Springer*, pp 58-63, 2017, DOI: 10.1007/978-3-319-56321-3_8
- Devi, J.M. and **A. Shekoofa** "Plant Water-Conservation Traits to Increase Crop Yields: Case Studies, Peanut Chapter" A book chapter, *Springer*, pp 27-33, 2017, DOI: 10.1007/978-3-319-56321-3_5
- Sinclair, T.R., A. Manandhar, **A. Shekoofa**, P. Rosas-Anderson, L. Bagherzadi, R. Schoppach, W. Sadok, and T.W. Rufty "Pot binding may be common occurrence confounding plant phenotype: Theoretical derivation and experimental observations" published, *Planta*, 2017, DOI: 10.1007/s00425-016-2641-0
- Sinclair, T.R., J.M. Devi, **A. Shekoofa**, S. Choudhary, W. Sadok, V.Vadez, M. Riar, T. Rufty "Limited-transpiration response to high vapor pressure deficit" **A Review Paper**, published, *Plant science*, 2017, 260:109-118.
- **Shekoofa, T. R.** Sinclair, C.D. Messina, M. Cooper "Variation among maize hybrids in response to high vapor pressure deficit at high temperature" published, *Crop Science*, 2016, 55:1-5.
- **Shekoofa, A.**, P. Rosas-Anderson, D.S. Carley, T.R. Sinclair, T.W. Rufty "Daconil-Action® limits transpiration of creeping bentgrass under high vapor pressure deficits" published, *Planta*, 2015, DOI 10.1007/s00425-015-2417-y
- **Shekoofa, A.**, P. Rosas-Anderson, M. Balota, T.G. Isleib, T.R. Sinclair "Measurement of limited transpiration trait under high VPD for peanut in chambers and in field" published, *Agronomy Journal*, 2015, 107:1019-1024.
- Rosas-Anderson, P., **A. Shekoofa**, T.R. Sinclair, M. Balota, T.G. Isleib, S. Tallury, T. Rufty "Genetic variation in peanut leaf maintenance and transpiration recovery from severe soil drying" published, *Field Crops Research*, 2014, 158:65-72.
- **Shekoofa, A.**, M. Balota, T.R. Sinclair "Limited-transpiration trait evaluated in growth chamber and field for sorghum genotypes" published, *Environmental and Experimental Botany*, 2014, 99:175-179.
- **Shekoofa, A.**, Y. Emam, N. Shekoufa, M. Ebrahimie, E. Ebrahimi "Determining the most important physiological and agronomic traits contributing to maize grain yield through machine learning algorithms: A new avenue in intelligent agriculture" published, *PLOS ONE*, 2014, DOI: 10.1371/journal.pone.0097288
- **Shekoofa, A.**, J. Mura Devi, T.R. Sinclair, C.C. Holbrook and T.G. Isleib "Divergence for drought-resistance traits among parents of recombinant peanut inbred lines" published, *Crop Science*, 2013, 53:2569-2576.
- Choudhary, S., R.N. Mutava, **A. Shekoofa**, T. R. Sinclair, P.V. Vara Prasad "Is the stay-green trait in sorghum a result of transpiration sensitivity to either soil drying or vapor pressure deficit?" published, *Crop Science*, 2013, 53:2129-2134.
- Saed-Moocheshi, A., **A. Shekoofa**, H. Sadeghi, and M. Pessarakli "Drought and salt stress mitigation by seed priming with KNO₃ and urea in various maize hybrids: An experimental approach based on enhancing antioxidant responses" published, *Journal of Plant Nutrition*, 2011, DOI: 10.1080/01904167.2013.868477
- **Shekoofa, A.**, Y. Emam, E. Ebrahimie, M. Ebrahimi "Application of supervised feature selection methods to define the most important traits affecting maximum kernel water content in maize" published, *Australian Journal of Crop Science*, 2010, 5(2):162-168.
- **Shekoofa, A.**, Y. Emam, M. Pessarakli "Effect of partial defoliation after silking stage on yield and yield components of three grain maize hybrids under semi-Arid conditions" published, *Archives of Agronomy and Soil Science*, 2010, DOI: 10.1080/03650340.2010.546788
- **Shekoofa, A.**, Y. Emam, M. Pessarakli "Source-sink manipulation effects on maize kernel quality" published, *Journal of Plant Nutrition*, 2010, DOI:10.1080/01904167.2013.793710

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- **Shekoofa, A.**, E. Bijanzadeh, Y. Emam, M. Pessaraki “Effect of salt stress on respiration of various wheat lines/cultivars at early growth stages” published, *Journal of Plant Nutrition*, 2010, DOI:10.1080/01904167.2012.739244
- Emam, Y., **A. Shekoofa**, F. Salehi, A.H. Jalali, and M. Pessaraki “Drought stress effects on two common bean cultivars with contrasting growth habits”, published, *Archives of Agronomy and Soil Science*, 2010, DOI: 10.1080/03650340.2010.530256
- All citations (33 publications) by March 2020: 525

Google citations

Extension Publications

- **Shekoofa, A.**, S. Safikhan, T. Raper, and S. Butler. 2019. “Cover crop residues impact cotton seed germination and seedling growth at different termination timings” UT Extension Publication W838. 5 pp. <https://extension.tennessee.edu/publications/Documents/W838.pdf>
- Leib, B., T. Grant, A.T. McClure, **A. Shekoofa**. 2018. The Basics of Soybean Irrigation in Tennessee. UTIA, In-house extension publication. <https://extension.tennessee.edu/publications/Documents/W809-B.pdf>
- **Shekoofa, A.**, and B. Leib. 2018. Tile drainage systems. UTIA, In-house extension publication. <https://extension.tennessee.edu/publications/Documents/W778.pdf>
- **Shekoofa, A.** 2018. “Increasing crops water saving potential” *TN Soy Beanobiz* bulletin. Tennessee Soybean Promotion Board (TSPB). Summer 2018.

Popular press articles

- Sinclair, T.R., **A. Shekoofa**, T.G. Isleib, M. Balota, H. Zhang. 2018. “Identification of Virginia-Type Peanut Genotypes for Water-Deficit Conditions Based on Early Decrease in Transpiration Rate with Soil Drying” *Science News*. December 2018. <https://www.sciencedaily.com/releases/2018/12/181219115533.htm>
- **Shekoofa, A.**, Cover crops effect on cotton germination. 2018. UTIA podcast. <https://anchor.fm/utiag/episodes/Call-of-the-Week-Cover-Crops-Effect-on-Cotton-Germination-e29iov/a-a5gl1r>
- **Shekoofa, A.**, Inhibitions of cotton germination and early seedling growth by cover crop residues. 2018. Mid America Farmer Grower (MAFG). <http://www.mafg.net/NewsDetail.aspx?NewsID=6362>
- Raper, T.B., **A. Shekoofa**, and J.L. Snider. 2018. Increased reports of boll cavitation. AgFax. <https://agfax.com/tag/utcrops/page/3/>
- **Shekoofa, A.**, Too much too soon, irrigation topic. 2018. Mid America Farmer Grower (MAFG). <http://www.mafg.net/NewsDetail.aspx?NewsID=6170>
- **Shekoofa, A.**, Tennessee scientist works to increase crops' water saving potential. 2018. Delta FarmPress. https://www.deltafarmpress.com/soybeans/tennessee-scientist-works-increase-crops-water-saving-potential?NL=DFP-01&Issue=DFP-01_20180530_DFP-01_636&sfvc4enews=42&cl=article_3&utm_rid=CPG0200000663483&utm_campaign=28086&utm_medium=email&elq2=c9c9df8ffec249d5b9abaa588a1955a1
- **Shekoofa, A.**, Drought simulation research seeks better soybean varieties. 2017. Delta FarmPress. <http://www.deltafarmpress.com/soybeans/drought-simulation-research-seeks-better-soybean-varieties>
- **Shekoofa, A.**, T.R Sinclair, C.D Messina, M. Cooper. 2016. “Expression of water-conserving trait in Maize varies at high vapor pressure deficit” published, *Crop, Soil, Agronomy (CSA) new*. February 2016, Page 16

Presentations Talk

- Brosnan, J.T., J. Vargas., **A. Shekoofa**, J. Simon, M.T. Elmore, D.P. Tuck. 2020. “Moisture status affects foramsulfuron efficacy for goosegrass (*Eleusine indica*) control”. Weed Science Society of America (WSSA), USA, Hawaii, March 2020.
- **Shekoofa, A.** 2020. “Water management and cotton cultivars: Irrigation scheduling and screening cotton cultivars for drought tolerant traits” *National Conservation System Cotton & Rice Conference*. Memphis, TN, January 2020. (Invited).
- Elmore, M.T. B.C. McNally, **A. Shekoofa**, J. T. Brasnon, D.P. Tuck. 2020. “Soil moisture and high evaporation affect foramsulfuron efficacy for goosegrass control” Northeastern Weed Science Society (NEWSS) Annual Meeting, Philadelphia, PA, January 2020.
- Akinrinlola, R. H. Kelly, T.R. Sinclair, **A. Shekoofa**. 2020. “Effect of soybean cyst nematode on dynamics of nitrogen fixation, root, and leaf growth in three soybean lines” Beltwide Cotton Conference (BWCC), Austin, TX, January 2020.
- **Shekoofa, A.**, S. Safikhan, J.L. Snider, T.B. Raper, F. Bourland. 2019. “Variation Among Cotton Genotypes in Stomatal Conductance Responses to High Vapor Pressure Deficit Under Rainfed Conditions” ASA-CSSA-SSSA Conference, USA, San Antonio, TX, November 2019.
- Davis, S., T.B. Raper, **A. Shekoofa**, S. Stewart. 2019. “Impact of cover crop termination timing and method on cotton production systems” ASA-CSSA-SSSA Conference, USA, San Antonio, TX, November 2019.

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- **Shekoofa, A.**, 2019. Plant physiological traits to reduce the impact of drought stress on row crops production” *University of Missouri & ARS-USDA Missouri Seminar Series*. Columbia, MO, October 2019. *(Invited)*.
- **Shekoofa, A.**, K. Sheldon, E.R. Walker. 2019. “Industrial hemp (*Cannabis sativa* L.) Cultivars and water saving traits: Water management” 1ST Hemp Production Conference, USA, Lexington, KY, October 2019.
- Walker, E.R., H. Kelly, **A. Shekoofa**, Z. Hansen, V.R. Sykes. 2019. “Yield, yield components, and cannabinoid profiles of high essential oil hemp varieties” 1ST Hemp Production Conference, USA, Lexington, KY, October 2019.
- **Shekoofa, A.**, A.T. McClure, J. Gillman. 2019. “Insertion of the limited transpiration trait into soybeans to improve drought adaptation” Plant Biology Conference, California, San Jose, August 2019. *(Invited talk)*.
- **Shekoofa, A.**, S. Safikhan, T.B. Raper, and S. Butler. 2019. “Allelopathic effect of cover crops on germination and early seedling growth of cotton (*Gossypium hirsutum*)” Beltwide Cotton Conference (BWCC), USA, New Orleans, LA, January 2019.
- **Shekoofa, A.**, A. McClure, V. Pantalone, N. Bellaloui, B. Leib and P. Arelli. 2018. “Evaluating seed protein and oil contents of nine soybean genotypes differing in stomatal closure with progressive soil drying trait under water deficit stress.” ASA-CSSA-SSSA Conference, USA, Baltimore, MD, November 2018.
- **Shekoofa, A.**, 2018. “Cotton leaf expansion and development under extreme evaporative demand (vapor pressure deficit-VPD)” *NASA-ISS Cotton Sustainability Challenge*, Kennedy Space Center, FL, April 2018. *(Invited)*.
- **Shekoofa, A.**, 2018. “Plant traits to minimize the impact of water deficit stress on crop growth and yield production” *Tennessee Agricultural Production Association (TAPA)*, Jackson, TN, February 2018. *(Invited)*.
- **Shekoofa, A.**, J.I. Sinder, T.B Raper. 2018. “Does the cotton cultivars' water use vary based on the stomatal conductance response to high vapor pressure deficit under rainfed conditions?” Beltwide Cotton Conference (BWCC), San Antonio, TX, January 2018.
- **Shekoofa, A.**, “Plants water use and water saving traits: under controlled and field conditions” Entomology and Plant Pathology Department, University of Tennessee Knoxville, TN, 10 Nov 2017. *(Invited)*.
- **Shekoofa, A.**, “Exploring plant water saving potential among row crops: drought tolerant traits” Tennessee Plant Research Center, Knoxville, TN, 31 August 2017. *(Invited)*.
- **Shekoofa, A.**, “Row crop production and water management: Water saving traits in controlled and field environments” *Crop Production and Plant Breeding Department Seminar Series*, Ferdowsi University of Mashhad (FUM), Iran, Mashhad, 24 December 2017. *(Invited)*.
- Sinclair, T.R., **A. Shekoofa**, T.G. Isleib, M. Balota, H. Zhang. 2017. “Identification of Virginia-type peanut genotypes for water-deficit conditions based on soil drying” 49th American Peanut Research and Education Society (APRES) annual meeting, Albuquerque, NM, 11-13 July 2017. *(Invited)*.
- **Shekoofa, A.**, T.B. Raper “Linking drought stress to lint yield: Characterizing drought stress while optimizing irrigation amount” Cotton Incorporated Tennessee State Support, Jackson, TN, 25 July 2017.
- **Shekoofa, A.**, B. Leib, M.A. McClure, V. Pantalone, P. Arelli “Genotype Identification for drought tolerance traits: Exploring soybean water saving potential among Tennessee varieties” Tennessee Soybean Promotion Board, Pigeon Forge, TN, 17-19 Jan 2017.
- **Shekoofa, A.**, T.R Sinclair, T.G. Isleib “Early stomatal closure trait in response to soil drying for yield improvement under drought stress conditions: Virginia-type Peanut” 7th International Crop Science Congress, Beijing, China, August 14–19, 2016.
- Holbrook, C.C., P. Ozias-akins, Y. Chu, T.G. Isleib, J. Clevenger, C. Chavarro, A.K. Culbreath, T.B. Brenneman, C.Y. Chen, S. Jackson, C. Butts, M. Lamb, C.K. Kvien, T.R. Sinclair, **A. Shekoofa**, B.L. Tillman, M.D. Burow, and B. Guo. 2016. “Advances in Marker Assisted Selection in Peanut” 48th American Peanut Research and Education Society (APRES) annual meeting, July 2016 Clearwater Beach, FL.
- **Shekoofa, A.**, T.R Sinclair, T.G. Isleib, “Genotype identification and insertion of drought tolerance traits into virginia-type peanut (Field observations)” NC Peanut Grower Association, Rocky Mount, 4 Dec 2015.
- **Shekoofa, A.**, T.R Sinclair, “Peanut Drought Tolerance Resulting from Genotype Identification and Cultivar Development for a Limited Transpiration Trait” BASF iTeam Event, Museum of Science, Raleigh, NC, 2 Dec 2015. *(Invited)*.
- **Shekoofa, A.**, T.R Sinclair, P. Ozias-Akins, C.C. Holbrook, “Phenotyping Tifrunner×NC3033 RILs population for the transpiration response using silver ion” 47th American Peanut Research and Education Society (APRES) annual meeting, Charleston, SC, 14-16 July 2015.
- **Shekoofa, A.**, T.R Sinclair, T.G. Isleib, “Genotype identification and insertion of drought tolerance traits into virginia-type peanut” NC Peanut Grower Association, Rocky Mount, 2 Dec 2014.
- **Shekoofa, A.**, M. Balota, T. R. Sinclair "Evaluation of sorghum genotypes for variation in maximum-transpiration trait in growth chamber and field." The ASA-CSSA-SSSA Conference, Tampa, FL-USA. 3-6 Nov 2013. *(Invited)*.
- **Shekoofa, A.**, Y. Emam, E. Ebrahimie, “Application of supervised feature selection methods to define the most important feature on sink/source relationships in maize” The First International Conference on Plant, Water, Soil, and Weather Modeling, Nov 14-15, 2010.

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Poster

- **Shekoofa, A.**, L. Steckel, C. Perkins, V. Sykes. 2020. “Inhibitions of goosegrass [*Eleusine indica* (L.) Gaertn.] and soybean [*Glycine max* (L.) Merr.] germination, growth, and development by cover crop residues” Weed Science Society of America (WSSA), USA, Hawaii, March 2020.
- **Shekoofa, A.**, J. Simon, D. Leimbach, F. Walker. 2020. “Amending two different soil types with biochar: Do row crops benefit from biochar” Beltwide Cotton Conference (BWCC), Austin, TX, January 2020.
- **Shekoofa, A.**, K. Sheldon, E.R. Walker. 2019. “Physiological screening for limiting transpiration rate among industrial hemp (*Cannabis sativa* L.) Cultivars” ASA-CSSA-SSSA Conference, USA, San Antonio, TX, November 2019.
- **Shekoofa, A.**, S. Purdom, A.T. McClure, B. Leib. 2019. “Variable rate irrigation scheduling for soybean plants: Large plot evaluation” ASA-CSSA-SSSA Conference, USA, San Antonio, TX, November 2019.
- Singh, S., S. Jagadamma, **A. Shekoofa**, M. Mayes. 2019. “The influence of moisture content variation on microbial mineralization of soil organic carbon” ASA-CSSA-SSSA Conference, USA, San Antonio, TX, November 2019.
- **Shekoofa, A.**, K. Sheldon, E.R. Walker. 2019. “Industrial hemp (*Cannabis sativa* L.) Cultivars and water saving traits: Water management” 1ST Hemp Production Conference, USA, Lexington, KY, October 2019.
- **Shekoofa, A.**, D. Lemibach, F. Walker. 2019. “Amending soil with biochar leads to soybean yield improvement: row crops benefit from biochar under both field and controlled environments” Biochar and Bioenergy Conference, USA, Fort Collins, CO, July 2019.
- **Shekoofa, A.**, S. Safikhan, T.B. Raper, L. Steckel, S. Butler, D. Copeland. 2019. “Inhibitions of pigweed (*Amaranthus palmeri* S.) germination and growth by cover crop residues” Weed Science Society of America (WSSA), USA, New Orleans, LA, February 2019.
- Singh, S., S. Jagadamma, **A. Shekoofa**, M. Mayes. 2019. “Dependence of moisture content on microbial mineralization of soil organic carbon” Annual Southern Regional Branch of ASA Meeting, USA, Birmingham, AL, February 2019.
- **Shekoofa, A.**, A. McClure, V. Pantalone, B. Leib and P. Arelli. 2018. “Diversity among soybean lines for transpiration rates decrease with progressive soil drying” Plant Biology Conference, Canada, Montreal, July 2018.
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- **Shekoofa, A.**, T.R Sinclair “ABA or/and Sulphate: Can they alter the stomatal response to high vapor pressure deficit of maize?” Plant Biology Conference, USA, Hawaii, June 2017.
- **Shekoofa, A.**, T.R. Sinclair “High temperature influence on limited transpiration response at elevated vapor pressure deficit in maize” The Inter Drought-V, India, Feb 2017.
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Services

- Serving as **treasurer** for the Certified Crop Advisor (CCA) board Aug 2018 to present)
- **Chair, Crop Irrigation Strategies and Management Community**, American Society of Agronomy (ASA) (Nov 2018 to Dec 2019)
- **Vice-chair, Crop Irrigation Strategies and Management Community**, American Society of Agronomy (ASA) (Oct 2017 to Nov 2018)
- Serving **Agronomy Journal** and American Society of Agronomy (ASA) as **associate editor** (2017-2020)
- Served as **panel member for the 2017 USDA-NIFA** Agriculture and Food Research Initiative Critical Agricultural Research and Extension Grant Review Panel, USA (2017)
- **Agronomy Club**, University of Tennessee Martin, Tennessee (2017)
- **Post-doc Representative**, College of Agricultural and Life Sciences, NC State University (2015-2016)
- **NC Science Fair Volunteer**, Scientific Review of the students science projects presented at the state science and engineering fair (2015)
- **Gifted Students Scholarship as a PhD Student**, Shiraz, Iran (2007-2010)
- **Collage of Agriculture representative**, Buali-Sina University, Hamedan, Iran (2001)

A. Shekoofa, Ph.D.

Professional Association

- Member of American Society of Agronomy, USA (2016 to present)
- Member Crop Science Society of America, USA (2016 to present)
- Member of American Society of Plant Biologists, USA (2015 to present)
- Member of American Peanut Research and Education Society, USA (2012 to present)
- Member of the Iranian Society of Biotechnology, Tehran, Iran (2009 to present)
- Member of the Iranian Society of Plant Physiology, Esfahan, Iran (2008 to present)
- Member of the Iranian Society of Crop Production & Breeding, Karaj, Iran (2003 to present)

Personal Reference

- **Thomas R. Sinclair, Ph.D.**, Adjunct. Professor. Department of Crop Science. Campus Box 7620, Raleigh, NC 27695-7620, (phone) 9195131620, (fax) 9195153332, Email: thomas_sinclair@ncsu.edu
- **Scott A. Senseman, Ph.D.**, Professor and Department head. Department of Plant Sciences. 2505 E J Chapman Drive, 112 Plant Biotechnology Building, Knoxville, Tennessee 37996-4500, (phone) 8659748033, (fax) 8659741947 Email: ssensema@utk.edu
- **Robert M. Hayes, Ph.D.**, Professor and Director. Department of Plant Sciences. WTREC., 605 Airways Blvd. Jackson, Tennessee 38301, (phone) 7314254769, (Cell) 7316951887 Email: rhayes1@utk.edu