

Dr. Donna McCallister

Texas Tech University
(806) 834-7189
donna.mccallister@ttu.edu

Education and Post Graduate Training

Ph D, Texas Tech University, 2014.
Major: Agricultural and Applied Economics
MS, Texas A&M University, 2009.
Major: Agricultural Economics
BS, Texas Tech University, 2007.
Major: Agricultural and Applied Economics

Academic and Professional Experience

Assistant Professor, Texas A&M University. (September 1, 2020 - Present).
Assistant Professor, Texas Tech University. (September 1, 2020 - Present).
Research Assistant Professor, Texas A&M AgriLife Research. (September 1, 2017 - August 31, 2020).
25% Joint Appointment
Research Assistant Professor, Texas Tech University. (November 1, 2015 - August 31, 2020).
Post-Doctoral Research Associate, Texas Tech University. (January 1, 2015 - October 31, 2015).

TEACHING

Courses Taught

Texas Tech University

AAEC 3303, Cooperatives, 5 courses.
AAEC 4301, Special Problems in Applied Economic Analysis, 1 course.
AAEC 4312, Applied Optimization Methods, 4 courses.
AAEC 5000, Professional Internship, 17 courses.
AAEC 5301, Special Study in Agricultural and Applied Economics, 4 courses.
AAEC 5314, Environmental Economics and Policy Analysis, 4 courses.
AAEC 6000, Master's Thesis, 8 courses.
AAEC 6305, Economic Optimization, 2 courses.
AAEC 7000, Research, 5 courses.
AAEC 8000, Doctor's Dissertation, 8 courses.
PSS 4340, Irrigation Management Seminar, 1 course.
RRP 1100, RaiderReady: First Year Student Seminar, 2 courses.

Directed Student Learning

Chris Albus, Master's Thesis Committee Chair, "N/A," Agricultural & Applied Economics. (January 1, 2024 - Present).

Sadie Woolery, Dissertation Committee Chair, "N/a," Agricultural & Applied Economics. (September 1, 2023 - Present).

Aileebn Malabanan, Master's Thesis Committee Chair, "N/A," Agricultural & Applied Economics. (September 1, 2023 - Present).

Reid Swinney, Master's Thesis Committee Chair, "N/A," Agricultural & Applied Economics. (September 1, 2023 - Present).

Subhana Mansur, Master's Thesis Committee Chair, "N/A," Agricultural & Applied Economics. (September 1, 2023 - Present).

Urzula Carillo, Undergraduate Research, "Profitability and Sustainability in Cotton Production in the Southern High Plains of Texas," Agricultural & Applied Economics. (January 1, 2023 - Present).

Trevor Johnson, Dissertation Committee Chair. (September 2022 - Present).

Oluwaseun Oduniyi, Dissertation Committee Chair, "N/A," Agricultural & Applied Economics. (August 1, 2022 - Present).

Amee Bumguardner, Graduate Dean's Representative, "Optimizing Fertilizer Management and Irrigation in Cotton Cropping Systems," Plant & Soil Science. (2022 - Present).

Kyle Russell, Graduate Dean's Representative, Plant & Soil Science. (May 2023).

Garrett Wesley, Master's Non-Thesis Committee Member, Plant & Soil Science. (May 2023).

Grace Blackwell, Master's Thesis Committee Chair, Agricultural & Applied Economics. (August 2020 - May 2022).

Trevor Johnson, Master's Thesis Committee Chair, Agricultural & Applied Economics. (August 2020 - May 2022).

Ashtyn Carr, Master's Non-Thesis Committee Chair. (January 2020 - May 2022).

Irish Pabuayon, Doctoral Advisory Committee Member, Plant & Soil Science. (2019 - May 2021).

Sawssan Boufous, Dissertation Defense Committee Member, Agricultural & Applied Economics. (2016 - May 2021).

C.D. Ray White, Graduate Dean's Representative, "Cover Crop and Weed Management Strategies in no-tillage cotton systems in the Texas High Plains," Plant & Soil Science. (2016 - March 31, 2021).

Clay Braden, Master's Thesis Committee Member, "Profitability Impacts of Cropping Systems in the Southern High Plains of Texas," Agricultural & Applied Economics. (March 22, 2021).

Brice Delong, Master's Thesis Committee Member, Plant & Soil Science. (January 2018 - December 2020).

Lauren Worley, Master's Non-Thesis Committee Co-Chair, Agricultural & Applied Economics. (May 2020).

Kathryn Radicke, Dissertation Committee Member, Plant & Soil Science. (September 2017 - May 2020).

Yi Chen, Dissertation Committee Co-Chair, Agricultural & Applied Economics. (September 1, 2016 - May 2020).

Rebecca McCullough, Dissertation Committee Co-Chair, Agricultural & Applied Economics. (September 1, 2016 - August 2019).

Nana Kusi, Graduate Dean's Representative, "Potassium Uptake, Utilization, and Chemistry in Cotton and Soil of the Texas SHP," Plant & Soil Science. (December 2018).

Kyle Gilliam, Graduate Dean's Representative, "Effects of Question Difficulty and Post-Question Water-Time Psychophysiological Responses and Post-Treatment Exam of Ag Education Majors," Agricultural Education & Communications. (May 2018).

Taylor Black, Master's Thesis Committee Member, Agricultural & Applied Economics. (September 2016 - May 2018).

Yedan (Victoria) Xiong, Dissertation Committee Member, Plant & Soil Science. (September 2014 - 2017).

Lisa Baxter, Graduate Dean's Representative, Plant & Soil Science. (May 2017).

Yang Gao, Master's Thesis Committee Member, "Cap and Trade Markets for Groundwater: Efficiency and Distributional Effects of a Permit Allocation Mechanism," Agricultural & Applied Economics. (August 2016).

RESEARCH

Published Intellectual Contributions

Book, Chapter in Scholarly Book-New

McCallister, D., Hudson, M., Post, R., Bell, P., Williams, R. (2015). Food Security and Conflict. *Food Security in an Uncertain World: An International Perspective* (vol. 15). Toronto: Emerald Publishing.

Conference Proceeding

McCallister, D., Williams, R., Johnson, P. (2016). *An Economic Analysis to Determine the Feasibility of Groundwater Supplementation from Dockum Aquifer*. Southern Agricultural Economics Association.

Gao, Y., Williams, R., McCallister, D. (2016). *Cap and Trade Markets for Groundwater Efficiency and Distributional Effects of the Permit Allocation Mechanism*. Southern Agricultural Economics Association.

McCallister, D., Hudson, M., Williams, R., Johnson, P. (2015). *The Impact of Climate Change on Cotton Production in Uzbekistan*. Beltwide Cotton Conference.

Journal Article, Academic Journal

Saini, D. K., Somayanda, I., McCallister, D., Patil, G., Abidi, N., Ritchie, G., Jaconis, S., SV, K. J. (2023). High day and night temperatures impact on cotton yield and quality – current status and future research direction. *Journal of Cotton Research*, 6.

Mauget, S., Ulloa, M., Mitchell, D. (2022). Simulated Irrigation Water Productivity and related Profit Effects in U.S. Southern High Plains Cotton Production. *Agricultural Water Management*, 266, 1:12.

Pabuayon, I., Mitchell, D., Lewis, K., Ritchie, G. (2021). Yield and Economic Response of Modern Cotton Cultivars to Nitrogen Fertilizer. *Agronomy Journal*, 11(11).

McCallister, D., McCullough, R., Johnson, P., Williams, R. (2021). An Economic Analysis on the Transition to Dryland Production in Deficit-Irrigated Cropping Systems of the Texas High Plains. *Frontiers in Sustainable Food Systems*, 5(49).

Pabuayon, I. L. B., Kelly, B., McCallister, D., Coldren, C., Ritchie, G. (2020). Cotton Boll Distribution: A Review. *Wiley Online Library*(doi/epdf/10.1002/agj2.20516).

Mitchell-McCallister, D. M., Cano, A. M., West, C. P. (2020). Meta-analysis of water use efficiency in deficit irrigation systems in the Texas High Plains. *Irrigation Science*, 38, 535-546.

Mitchell-McCallister, D. M., Cano, A. M., West, C. (2020). Meta-analysis of water use efficiency in deficit irrigation systems in the Texas High Plains. *Irrigation Science*, 38(6).

Mitchell, D., Williams, R., Brodovsky, J., Mustian, J., Ritchie, G., Lewis, K. (2020). Maximizing profits via irrigation timing for capacity-constrained cotton production. *Agricultural Water Management*, 229, 1-8.

Hohman, Z., Hudson, M., Williams, R., Harris, B., Alquist, J., McCallister, D., Niedbala, E., Price, M. (2019). The Impacts of Stress on Economic Decisions. *Journal of Behavioral Economics for Policy*, 3(1), 30-35.

Lange, K., Tewari, R., Zivkovic, S., McCallister, D. (2018). Gender influences in agricultural production: the dynamic role of the female farmer. *CAB Reviews: Perspectives in Agriculture, Veterinary Sciences, Nutrition, and Natural Resources*, 13(025), pp. 1-9.

Lewis, K., Burke, J. A., Keeling, W. S., McCallister, D., DeLaune, P. B., Keeling, J. W. (2018). Soil Benefits and Yield Limitations of Cover Crop Use in Texas High Plains Cotton. *AGRONOMY JOURNAL*, 110(4), 1616-1623.

McCallister, D., Hudson, M., Williams, R., Johnson, P. (2017). A Monte Carlo Analysis on the impact of Climate Change on Future Crop Choice and Water Use in Uzbekistan. *Food Security: The Science, Sociology and Economics of Food Production and Access to Food*, 9(4), 697-709.

Williams, R., Rashid, A., Segarra, E., McCallister, D. (2017). An Estimate of the Shadow Price of Water in the Southern Ogallala Aquifer. *Journal of Water Resource and Protection*, 9, 289-304.

Weinheimer, J., Johnson, P., McCallister, D., Johnson, J., Kellison, R. (2013). Texas High Plains Initiative for Strategic and Innovative Irrigation Management and Conservation. *Journal of Contemporary Water Research and Education*, 151, 43-49.

Journal Article, Professional Journal

Post, R., Hudson, M., McCallister, D., Bell, P., Williams, R., Perliger, A. (2016). Rethinking the Water-Food-Climate Nexus and Conflict: An Opportunity Cost Approach. *Applied Economics and Policy Perspectives*, 38, 538-567.

Journal, Edited Special Issue

Rudnick, D., Irmak, S., West, C., Chavez, J. L., Kisekka, I., Marek, T., Schneekloth, J., McCallister, D., Sharma, V., Djaman, K., Aguilar, J., Schipanski, M., Rogers, D., Schlegel, A. (2019). Deficit Irrigation of Maize in the High Plains Aquifer Region: A Review. *Journal of the American Water Resources Association*, 55(1), 38-55.

Research Report

Mitchell, D. (2021). An economic analysis evaluating terminated rye cover with continuous cotton vs wheat/cotton rotation at AG-CARES, Lamesa, TX, 2014-2019. *2020 Annual Report, Agricultural Complex for Advanced Research and Extension Systems (AG-CARES)* (Technical Report 21-2 ed.). Texas A&M AgriLife Extension Service.

Technical Report

Mitchell, D. (2022). Effects of Irrigation Rate, Tillage System, and Nitrogen Application on Verticillium Wilt and Cotton Yield. *Helm Research Farm Summary Report, 2021* (vol. Technical Report 22-3). Texas A&M AgriLife Extension.

Dhakal, M., West, C., Villalobos, C., Sarturi, J., McCallister, D. (2020). *Improving grassland with alfalfa in the Texas High Plains* (pp. 2). Lubbock, TX: TTU Texas Alliance for Water Conservation.

Presentations Given

Kitten, K., Fischer, L., McCallister, D., National Conference, "'I don't even know what sustainability is'": Describing West Texas cotton farmer communication preferences for learning about voluntary sustainability programs.," National Agricultural Communications Symposium, Atlanta, Georgia. (2024).

Kang, Q. (Presenter & Author), Johnson, T. (Author Only), Sarasty Miranda, O. (Author Only), Carpio, C. (Author Only), Hudson, M. (Author Only), McCallister, D., Southern Agricultural Economics Association, "Does Product Presentation Affect Consumer's Willingness to Pay? Evidence from Choice Experiments," Atlanta, Georgia. (February 2024).

Johnson, T. (Presenter & Author), Kang, Q. (Author Only), Sarasty Miranda, O. (Author Only), Hudson, M. (Author Only), Carpio, C. (Author Only), McCallister, D., Southern Agricultural Economics Association, "Everything's Brewed in Texas? Consumer Willingness to Pay for Texas-Brewed Beer," Atlanta, Georgia. (February 2024).

Kitten, K., Fischer, L., McCallister, D., National Conference, "Describing cotton farmer perceptions of voluntary sustainability programs in West Texas.," Beltwide Cotton Conference: Cotton Economics and Marketing, Fort Worth, TX. (January 2024).

Keeling, W. (Presenter & Author), Wright, A. (Author Only), McCallister, D. (Author Only), Guerrero, B. (Author Only), Lewis, K. (Author Only), Burke, J. (Author Only), Beltwide Cotton Conference, "Economics of Conservation Practices in the Texas High Plains," National Cotton Council, Fort Worth, Texas. (January 4, 2024).

Carillo, U. (Presenter & Author), McCallister, D. (Author Only), Johnson, P. (Author Only), Beltwide Cotton Conference, "Profitability and Sustainability of Cotton Production in the Southern High Plains of Texas," National Cotton Council, Fort Worth, Texas. (January 4, 2024).

McCallister, D., National Academies Soil Health Committee Meeting, National Academies of Science. (October 23, 2023).

McCallister, D., TTU Cotton School, "What is sustainability and why should we care?," FBRI, Lubbock, TX. (August 8, 2023).

Gao, L. (Presenter & Author), McCallister, D. (Author Only), Williams, R. (Author Only), Agricultural Applied Economics Association Annual Meeting, "An Experimental Economics Approach to Valuing Land Prices," Washington, DC. (July 2023).

Johnson, T. (Presenter & Author), McCallister, D. (Author Only), American Agricultural Economics Association Annual Meeting, "The Impact of the Regional Greenhouse Gas Initiative in Maryland: An Application of the Synthetic Control Method," Washington, DC. (July 2023).

McCallister, D., Gao, L. (Author Only), Johnson, T. (Presenter Only), Western Agricultural Economics Association Annual Meeting, "A laboratory experiment to assess the impact of risk preferences on land bidding values," Whistler, Canada. (July 2023).

Johnson, T. (Presenter & Author), McCallister, D., Berthold, A. (Author Only), Western Agricultural Economics Association, "Identifying and Overcoming Barriers to Adoption of Regenerative Agricultural Practices in the Southern Great Plains," Whistler, Canada. (July 18, 2023).

McCallister, D. (Presenter & Author), Guerrero, B. (Author Only), Wright, A. (Author Only), Burke, J. (Author Only), Lewis, K. (Author Only), Universities Council on Water Resources (UCOWR), "Profitability comparisons of regenerative agricultural practices in deficit-irrigated systems," Fort Collins, CO. (June 14, 2023).

Hardberger, A. (Presenter & Author), McCallister, D. (Presenter & Author), CASFER 2023 Symposium, "Policy and Economic Considerations for a Nitrogen Circular Economy," CASFER, Lubbock. (June 7, 2023).

Hardberger, A. (Author Only), McCallister, D., Tweet, S. (Author Only), Gao, L. (Presenter & Author), CASFER 2023 Symposium, "Economic and Policy Evaluation of a Nitrogen Offset Market," CASFER, Lubbock, TX. (April 7, 2023).

McCallister, D. (Presenter & Author), CASFER FUP Proposals Presentations, "Economic Analysis - Optimization Modeling," CASFER, Zoom. (April 6, 2023).

Gao, L. (Presenter & Author), McCallister, D. (Author Only), Williams, R. (Author Only), Ogallala Aquifer Program Annual Meeting, "An Experimental Approach to Valuing Land Prices," USDA ARS, Amarillo, TX. (April 4, 2023).

Johnson, T. (Presenter & Author), McCallister, D., Guerrero, B. (Author Only), Benavidez, J. (Author Only), Ogallala Aquifer Program Annual Meeting, "Meta-synthesis of Literature in Economics and Agronomics on 'Climate-Smart' Influences on Aquifer Drawdown," USDA

- ARS, Amarillo, TX. (April 4, 2023).
- Johnson, T. (Presenter & Author), McCallister, D., Berthold, A. (Author Only), DeVilleneuve, S. (Author Only), Ogallala Aquifer Program Annual Meeting, "Survey of Irrigation Practices and Perceived Risk Attitudes Toward Adoption of Sustainable Farming Methods in the Texas High Plains," USDA ARS, Amarillo, Texas. (April 4, 2023).
- Seo, F. (Presenter & Author), Hudson, M. (Author Only), McCallister, D. (Author Only), Johnson, P. (Author Only), 2023 Southern Agricultural Economics Association Annual Meeting, "Managers, Boards, and Principal-Agent Problem in Cooperatives," Southern Agricultural Economics Association, Oklahoma City, OK. (February 2023).
- Oduniyi, O. (Presenter & Author), McCallister, D. (Author Only), SV, K. J. (Author Only), Somayanda, I. (Author Only), Beltwide Cotton Conference, "Heat Stress Impact on Cotton Yield Across the United States," National Cotton Council, Fort Worth, Texas. (January 4, 2023).
- Mitchell, D. (Presenter & Author), Parajulee, M. (Author Only), Toews, M. (Author Only), International IPM Symposium, "Economics of Multiple Pest Management Strategies in Water-Deficit Production Scenarios," Denver, Co. (March 3, 2022).
- Mitchell, D. (Presenter & Author), Master Irrigator, "Economic Comparisons of SDI and Center Pivot Irrigation Systems," Oklahoma State University Extension, Altus, OK. (February 21, 2022).
- Johnson, T. (Presenter & Author), Mitchell, D. (Author Only), Xu, W. (Author Only), SAEA, "Consumer Preference Regarding New Corn Varieties: A Willingness to Pay Study," New Orleans, LA. (February 14, 2022).
- Mitchell, D., 8th Annual Water College, "Sustainability in the Cotton Supply Chain," Texas Alliance for Water Conservation, Lubbock, Texas. (January 20, 2022).
- Blackwell, G. (Presenter & Author), Mitchell, D. (Author Only), Beltwide Cotton Conference, "Assessing Grower Willingness to Accept for Incentives in Sustainability Program Participation," National Cotton Council, San Antonio, Texas. (January 5, 2022).
- Mitchell, D. (Presenter & Author), Lewis, K. (Author Only), Beltwide Cotton Conference, "Sustainable Agricultural Practices in the Southern High Plains," National Cotton Council, San Antonio, Texas. (January 5, 2022).
- Parajulee, M. (Presenter & Author), Dhakal, D. (Author Only), Hakeem, A. (Author Only), Toews, M. t. (Author Only), Mitchell, D., Vyavhare, S. (Author Only), Lewis, K. (Author Only), Annual Meeting of the Entomological Society of America, "Insect Management in limited irrigation cotton production systems," Denver, CO. (2021).
- Pabuayon, I. (Presenter & Author), Lewis, K. (Author Only), Ritchie, G. (Author Only), Mitchell, D., ASA-CSSA-SSSA International Meeting, "Weather sensitivity of cotton in the Southern High Plains," Salt Lake City, UT. (November 2021).

Mitchell, D. (Presenter & Author), 48th Annual Banker's Agricultural Credit Conference, "Sustainability in the Cotton Supply Chain," Lubbock, Texas. (November 19, 2021).

Mitchell, D., Climate Literacy for Agriculture and Sustainable Societies (CLASS), "Climate Challenges and Successes: Lessons from Texas," University of Tennessee-Martin, Virtual. (June 16, 2021).

Mitchell, D. (Presenter & Author), Johnson, P. (Author Only), Williams, R. (Author Only), UCOWR, "Reducing acreage in deficit irrigation systems to maximize producer profitability," Virtual. (June 5, 2021).

Buck, R. (Presenter & Author), Mitchell, D., Segarra, E., 2021 Poster Competition, "Economic Analysis of Alternative Crops in Cotton Rotations Compared to Monoculture Cotton," Texas Tech University, Virtual. (March 11, 2021).

Braden, C. M., Lange, K., Mitchell, D., Keeling, Lewis, K., Keeling, W., Southern Agricultural Economics Association Annual Meeting, "Profitability Impacts of Cropping Systems in the Southern High Plains of Texas," Southern Agricultural Economics Association, Virtual. (February 9, 2021).

Parajulee, M. (Presenter & Author), Hakeem, A. (Author Only), Dhakal, D. (Author Only), Toews, M., Mitchell, D., Lewis, K. (Author Only), Beltwide Cotton Conference, "Managing early vs late season insects in limited irrigation cotton," National Cotton Council, San Antonio, TX. (January 2021).

Buck, R. (Presenter & Author), Mitchell, D., Segarra, E., Beltwide Cotton Conference, "Economic Analysis of the Impact of Alternative Crops in Cotton Rotations Compared to Monoculture Cotton," National Cotton Council. (January 6, 2021).

Braden, C. M., Mitchell, D., Lange, K., Keeling, W., Keeling, W., Lewis, K. L., Wheeler, T., Beltwide Cotton Conferences, "Cropping System Effects on Cotton Variety Performance in the Presence of Root-Knot Nematodes in the Southern High Plains of Texas," National Cotton Council of America, Virtual. (January 6, 2021).

Parajulee, M. (Presenter & Author), Dhakal, D. (Author Only), Hakeem, A. (Author Only), Toews, M. (Author Only), Mitchell, D., Vyavhare, S. (Author Only), Lewis, K. (Author Only), Annual meeting of the Entomological Society of America, "Impact of sequential infestation of thrips and lygus bugs on cotton yield and fiber quality," Virtual. (November 2020).

Hakeem, A. (Presenter & Author), Parajulee, M. (Author Only), Toews, M., Vyavhare, S. (Author Only), Lewis, K. (Author Only), Mitchell, D., Dhakal, D. (Author Only), Beltwide Cotton Conference, "Managing early-season insect pests in dryland cotton," National Cotton Council, Austin, TX. (January 2020).

Mitchell, D. (Presenter & Author), Beltwide Cotton Conference, "Economic Comparison of Crop Row Offset and Orientation to SDI Laterals." (January 9, 2020).

- Lewis, K. (Presenter & Author), De Laune, P. (Author Only), Mitchell, D., Keeling, W. (Author Only), Keeling, W. (Author Only), Burke, J. (Author Only), ASA-CSSA-SSSA International Meetings, "Do cover crops help or hurt with water conservation?," San Antonio, TX. (November 2019).
- West, C. P. (Presenter & Author), Mitchell, D. M. (Author Only), ASA-CSSA-SSSA annual meeting, "Irrigation technologies with potential to improve water use efficiency," ASA-CSSA-SSSA, San Antonio, TX. (November 11, 2019).
- McCallister, D. (Presenter & Author), Parajulee, M. (Author Only), American Chemical Society, "The Role of IPM in Farm Sustainability," San Diego, CA. (August 25, 2019).
- Johnson, P. (Presenter & Author), McCallister, D. (Author Only), Kellison, R. (Author Only), Texas International Cotton School, "Sustainability of Cotton Production," The Fiber & Biopolymer Research Institute and Texas Tech University, Lubbock. (August 9, 2019).
- Ritz, R., West, C., McCallister, D., 2019 Regional Engaged Scholarship Symposium, "Connecting Agricultural Water Conservation Education from Students to Producers and Consumers," Texas Tech University, Lubbock. (April 10, 2019).
- McCallister, D., Johnson, P., 2019 Regional Engaged Scholarship Symposium, "Involving Agricultural Producers in Efforts to Conserve Irrigation Water While Maintaining Economic Profitability," Texas Tech University, Lubbock. (April 10, 2019).
- McCallister, D., Johnson, P., Beltwide Cotton Conference, "A Fieldprint Calculator Analysis of Resource and Cost Efficiencies in the Southern High Plains," National Cotton Council, New Orleans, LA. (January 10, 2019).
- Lewis, K., Keeling, W., McCallister, D., Keeling, W., DeLaune, P., Burke, J., Beltwide Cotton Conference, "Economic Comparison of Cover Crop Use in Texas High Plains Cotton," National Cotton Council, New Orleans, LA. (January 10, 2019).
- Pate, J., McCallister, D., Keeling, W., Beltwide Cotton Conference, "Economic Analysis of Cover Crops in the Southern High Plains," National Cotton Council, New Orleans, LA. (January 9, 2019).
- Lewis, K., McCallister, D., Keeling, W., DeLaune, P., Keeling, W., 2018 Annual ASA-CSSA International Meetings, "Soil benefits and yield limitations of cover crop use in Texas High Plains Cotton," Cover Crop Symposium, Baltimore, MD. (November 2018).
- Baker, C. (Presenter & Author), McCallister, D., Bordovsky, J. (Author Only), Undergraduate Research Conference, "Economic Analysis on the Timing of Cotton Irrigation with Variable Seasonal Irrigation Capacities in the Texas South Plains," Texas Tech University, Lubbock, TX. (March 2018).
- Chen, Y. (Presenter & Author), McCallister, D., Johnson, P., West, C., Southern Agricultural Economics Association Annual Meeting, "Economic Evaluation of Integrating Legume and

- Beef Production on Low Water Input Systems," Jacksonville, Florida. (February 2018).
- McCullough, R. (Presenter & Author), McCallister, D., Williams, R., Southern Agricultural Economics Association Annual Meeting, "Optimal Nitrogen/Water Use in the Southern Sub-Region of the Ogallala Aquifer," Jacksonville, Florida. (February 2018).
- McCallister, D., West, C., Beltwide Cotton Conference, "A Meta-Analysis on the Impact of Irrigation Technology on Cotton Yield and WUE," San Antonio, TX. (January 3, 2018).
- Black, T. (Presenter & Author), Johnson, P., McCallister, D., Beltwide Cotton Conference, "An Evaluation of Production, Costs, and Sustainability on Crop Production in the Southern High Plains of Texas," San Antonio, TX. (January 3, 2018).
- Black, T. (Presenter & Author), Johnson, P., McCallister, D., Beltwide Cotton Conference, "Fieldprint Calculator: An Analysis of Sustainability in Diverse Agricultural Systems on the Southern High Plains," San Antonio, TX. (January 3, 2018).
- McCallister, D., Beltwide Cotton Conference, "Profitability Comparisons of Strip-Till and Conventional Tillage Practices in the Southern High Plains," San Antonio, TX. (January 3, 2018).
- Pate, J., McCallister, D., Keeling, W., Beltwide Cotton Conference, "Economic Advantages of Soil Moisture Probes on the Texas Southern High Plains," National Cotton Council, Dallas, Texas. (2017).
- McCallister, D. (Presenter & Author), Johnson, P. (Author Only), Black, T. (Author Only), Beltwide Cotton Conference, "Fieldprint Calculator: A Sustainability Analysis in the Texas High Plains," National Cotton Council, Dallas, Texas. (2017).
- McCallister, D. (Presenter & Author), Williams, R. (Author Only), Hudson, M. (Author Only), Johnson, P. (Author Only), International Conference on Natural Resource Management and Public Policy, "Policy Implications for Sustainable Development in Uzbekistan," Wuhan, China. (October 18, 2017).
- Kellison, R., McCallister, D., Bayer Brands Tour, "Cotton- Field to Gin," Bayer, TAWC, Lubbock. (August 2017).
- West, C. (Presenter & Author), Kellison, R. (Author Only), Brown, P. (Author Only), Pate, J. (Author Only), McCallister, D. (Author Only), West Central Research and Extension Center Field Day, "Stretching the Supply of Groundwater and Making it Pay in the Texas South Plains," North Platte, Nebraska. (August 24, 2017).
- McCallister, D. (Presenter & Author), West, C. (Author Only), Universities Council on Water Resources (UCOWR), "Effects of Irrigation Technology and Management on WUE and Crop Yield: A Meta-Analysis," Fort Collins, Colorado. (June 13, 2017).
- Williams, R., Segarra, E., Bian, D., McCallister, D., Western Social Science Association Conference, "Impacts of Agricultural Productivity Enhancements and Time Value of Money

- on Groundwater Extraction," Western Social Science Association, San Antonio, TX. (April 5, 2017).
- McCallister, D. (Author Only), West, C. (Author Only), Central Plains Irrigation Conference, "Deficit Irrigation Management of Corn in the High Plains: A Review," Burlington, Colorado. (February 2017).
- McCallister, D., Williams, R., Johnson, P., Southern Agricultural Economics Association Conference, "An Economic Analysis to Determine the Feasibility of Groundwater Supplementation from the Dockum Aquifer," Southern Agricultural Economics Association, San Antonio, TX. (February 2016).
- Gao, Y., Williams, R., McCallister, D., Southern Agricultural Economics Association Conference, "Cap and Trade Markets for Groundwater: Efficiency and Distributional Effects of the Permit Allocation Mechanism," Southern Agricultural Economics Association, San Antonio, TX. (February 2016).
- McCallister, D., Robinson, J., Southern Agricultural Economics Association Conference, "Structural Changes in U.S. Cotton Supply," Southern Agricultural Economics Association, San Antonio, TX. (February 6, 2016).
- McCallister, D., Pate, J., Beltwide Cotton Conference, "Probitability of 2 and 2 Production Systems," National Cotton Council and the Cotton Foundation, New Orleans, LA. (January 6, 2016).
- McCallister, D., Robinson, J., Beltwide Cotton Conference, "Structural Changes in U.S. Cotton Supply," National Cotton Council and the Cotton Foundation, New Orleans, LA. (January 5, 2016).
- McCallister, D. (Presenter & Author), Hudson, M. (Author Only), Williams, R. (Author Only), Hayhoe, K. (Author Only), Southern Agricultural Economics Association Annual Meeting, "Impact of Climate Change on Food Security in Uzbekistan," Atlanta, Georgia. (February 2015).
- McCallister, D. (Presenter & Author), Hudson, M. (Author Only), Williams, R. (Author Only), Hayhoe, K. (Author Only), Society of Industrial and Applied Mathematics (SIAM), "Food Security and Water Availability in Uzbekistan," Salt Lake City, Utah. (February 14, 2015).
- McCallister, D., Hudson, M., Williams, R., Beltwide Cotton Conference, "The Impact of Climate Change on Cotton Production in Uzbekistan," San Antonio, TX. (January 2015).

Media Contributions

Blog

Water Grows. (July 19, 2021).

Internet

CASNR NewsCenter. (November 2021).

CASNR NewsCenter. (November 2021).

CASNR NewsCenter. (October 2021).

Cotton Farming. (October 20, 2021).

Southwest Farm Press. (October 8, 2021).

Everything Lubbock. (October 2, 2021).

CASNR News Center. (July 2018).

Southwest Farm Press. (July 17, 2018).

Magazine

Cotton Farming. (December 1, 2021).

The Agriculturalist. (May 2, 2017).

Newspaper

The Daily News - Galveston County. (December 3, 2021).

Reporting Texas. (March 14, 2019).

Daily Toreador. (September 21, 2017).

Lubbock Avalanche Journal. (August 7, 2016).

Radio

Planet Texas. (October 8, 2021).

Ag Day on RFD TV. (September 26, 2020).

TV

US Farm Report. (September 26, 2020).

Contracts, Grants and Sponsored Research

Grant

Kelly, B., Longing, S., Deb, S., Irlbeck, E., McCallister, D., "Connecting consumers with the

- ecosystem benefits of sustainable cotton (*Gossypium hirsutum*) production," Sponsored by Project Revolution, \$600,000.00. (January 2023 - Present).
- McCallister, D. (Lead Principal Investigator), Badruddoza, S. (Principal Investigator), Fischer, L. (Principal Investigator), "Developing Data-Driven Marketing Incentives for Sustainable Cotton Production throughout the Supply Chain," Sponsored by USDA-NIFA, Federal, \$649,999.00. (2023 - 2026).
- SV, K. J., Slaughter, L., Young, J., Deb, S., Saini, R., Somayanda, I., Ritchie, G., Cooper, C., Coldren, C., Crossland, W., McCallister, D., Ritz, R., Monsur, M., "A collaborative trans-disciplinary network for exploring novel ideas and developing next generation workforce for water conservation," Sponsored by Davis College of Agricultural Sciences and Natural Resources, College or University, \$250,000.00. (July 1, 2023 - June 30, 2026).
- Fraze, S. (Lead Principal Investigator), Hill, N. (Principal Investigator), Hodnett, F. (Principal Investigator), Ritz, R. (Principal Investigator), Gibson, C. (Principal Investigator), Mitchell, D. (Principal Investigator), "Young Agri-Scientists: Connecting diverse students to each other and FANH careers through experiential learning in mentored research and science communication," Sponsored by USDA-NIFA Hispanic Serving Institutions Education Grant, Federal, \$999,934.00.
- Bratcher, C. (Lead Principal Investigator), Guo, W. (Principal Investigator), McCallister, D. (Principal Investigator), Singh, S. (Principal Investigator), Saini, R. (Principal Investigator), Williams, R. (Principal Investigator), Deb, S. (Principal Investigator), Wang, C. (Principal Investigator), "OAP- Precipitation and Irrigation Management to Optimize Profits from Crop Production - OAP 3rd Phase with TTU," Sponsored by USDA Agricultural Research Service, Federal, \$218,936.00. (September 2021 - August 2024).
- McCallister, D. (Principal Investigator), Williams, R. B. (Principal Investigator), Guerrero, B. (Principal Investigator), Almas, L. (Principal Investigator), Vestal, M. (Principal Investigator), Benavidez, J. (Principal Investigator), Golden, B. (Principal Investigator), "Economic and Policy Implications of Underground Water Use in the Southern Ogallala Region," Sponsored by USDA - ARS, Federal, \$200,000.00. (January 1, 2022 - December 31, 2023).
- Mitchell, D., "Evaluating Incentive Mechanisms to Promote Conservation and Sustainability in Texas Cotton Production," Sponsored by Cotton Incorporated, Industry/For Profit, \$5,000.00.
- Mitchell, D. (Lead Principal Investigator), Hudson, M. (Principal Investigator), Johnson, P. (Principal Investigator), "Evaluating Incentive Mechanisms to Promote Conservation and Sustainability in Texas Cotton Production," Sponsored by Cotton Incorporated, Industry/For Profit, \$7,500.00. (January 2021 - December 2022).
- Botte, G., Boren Alpizar, A., Chen, C.-C., Hardberger, A., Uddameri, E., Jones, S., Khatib, S., Lange, K., Lewis, K., Malmali, M., Mitchell, D., Millerick, K., Siebecker, M., Slaughter, L., Smith, C., Spott, J., "NSF Engineering Research Center for Advancing Sustainable and Distributed Fertilizer Production (CASFER)," Sponsored by National Science Foundation, \$31,200,000.00. (September 2022 - Present).

Mitchell, D., "Water Conservation through Soil Health Improvement on the Texas High Plains," Sponsored by Texas Water Development Board, State of Texas Agency, \$239,032.00.

West, C. (Lead Principal Investigator), Slaughter, L. (Principal Investigator), Hudson, M. (Principal Investigator), Williams, R. (Principal Investigator), Burow, M. (Principal Investigator), Mitchell, D. (Principal Investigator), Singh, S. (Principal Investigator), Guo, W. (Principal Investigator), Deb, S. (Principal Investigator), "OAP: Precipitation and Irrigation Management to Optimize Profits from Crop Production," Sponsored by USDA Agricultural Research Service, Federal, \$257,468.00. (September 2019 - August 31, 2022).

Mitchell, D., "Evaluation of Soil Conservation Practices and Integrated Advanced Irrigation Technologies on Soil Health and Water Use Efficiency," Sponsored by Texas Corn Producers Board, Industry/For Profit.

Parajulee, M. (Lead Principal Investigator), McCallister, D. (Principal Investigator), Lewis, K., "Developing Insect Pest Management Strategies in Water Deficit Cotton Production Systems: Management Recommendations for Production," Sponsored by USDA NIFA, Federal, \$324,603.00. (2019 - 2021).

Mitchell, D., "Project to Improve Data Interoperability between the Fieldprint Platform® and NRCS's CART," Sponsored by Field to Market/NRCS, Federal, \$50,000.00.

Wheeler, T., Bordovsky, J., Keeling, W., McCallister, D., Williams, R., Keeling, W., "Effects of Crop Rotation, Tillage, and Irrigation Strategies on Cotton Infested with Verticillium Wilt," Sponsored by Texas State Support Committee, \$26,000.00. (January 1, 2019 - December 31, 2020).

McCallister, D. (Principal Investigator), Lewis, K. (Lead Principal Investigator), "Evaluation of Soil Conservation Practices and Integrated Advanced Irrigation Technologies on Soil Health and Water Use Efficiency," Sponsored by Texas Corn Producers Board, Other Nonprofit Org, \$108,972.00. (January 1, 2018 - 2020).

McCallister, D. (Supporting), "Sustaining Agriculture through Adaptive Management to Preserve the Ogallala Aquifer Under a Changing Climate," Sponsored by USDA NIFA, Federal, \$224,000.00. (2016 - 2020).

Mitchell, D., "Collaborative Research on Cotton Production in Thermo-limited Regions of the High Plains," Sponsored by USDA ARS Ogallala Aquifer Program, Federal, \$2,000,000.00.

McCallister, D., Williams, R., "Economic and Policy Implications of Underground Water Use in the Southern Ogallala Region," Sponsored by USDA ARS Ogallala Aquifer Program, Federal, \$90,000.00. (2019).

McCallister, D. (Principal Investigator), "Economic Viability and Soil Health Sustainability Concerning the use of Brackish Dockum Aquifer Irrigation Water for Crop Agriculture," Sponsored by USDA ARS, Federal, \$29,000.00. (2018 - 2019).

Williams, R. (Principal Investigator), McCallister (Principal Investigator), Guerrero, B. (Principal Investigator), Almas, L. (Principal Investigator), Golden, B. (Principal Investigator), Park, S. (Principal Investigator), "Economic and Policy Implications of Underground Water Use in the Southern Ogallala Region: Economic analysis of experimental results.," Sponsored by USDA ARS Ogallala Aquifer Program, Federal, \$180,000.00. (October 2017 - December 2019).

Williams, R. (Principal Investigator), McCallister, D. (Principal Investigator), Almas, L. (Principal Investigator), Guerrero, B. (Principal Investigator), Golden, B. (Principal Investigator), Park, S. (Principal Investigator), "Economic and Policy Implications of Underground Water Use in the Southern Ogallala Region: Economic impact of selected water conservation policies in Texas," Sponsored by USDA ARS Ogallala Aquifer Program, Federal, \$200,000.00. (January 2017 - August 2019).

Johnson, P. (Principal Investigator), McCallister, D. (Principal Investigator), "Application of the Field Print Calculator for Cotton Production in the Texas High Plains," Sponsored by Cotton Foundation, Foundation, \$18,000.00. (September 2017 - August 2018).

D. (Principal Investigator), Harris, B. (Principal Investigator), Williams, R. (Principal Investigator), Alquist, J. (Principal Investigator), McCallister (Principal Investigator), "Economic decisions under stress," Sponsored by Vice President for Research Seed Grants for Interdisciplinary Research, College or University, \$114,000.00. (June 2017 - Present).

Johnson, P. (Principal Investigator), Mitchell, D. (Principal Investigator), "An Economic Analysis to Determine the Feasibility of Groundwater Supplementation from the Dockum Aquifer," Sponsored by High Plains Underground Water District, \$10,000.00. (September 1, 2015 - June 30, 2016).

Intellectual Contributions in Submission

Journal Article, Academic Journal

Mitchell, D. Simulated Irrigation Water Use Efficiency in U.S. Southern High Plains Cotton Production. *Agricultural Water Management*.

SERVICE

Department Service

Degree Program Coordinator, Masters of Agribusiness. (May 2022 - Present).

Committee Member, Master of Agribusiness Program Committee. (September 2020 - Present).

Committee Member, Student Recruitment, Awards & Scholarship. (September 2020 - Present).

Committee Member, Plant and Soil Science Diversity Hire Committee. (January 1, 2019 - Present).

Degree Program Coordinator, Masters of Agribusiness Co-Coordinator. (March 2021 - May 2022).

Faculty Mentor, Agricultural and Applied Economics Undergraduate Association. (2016 - 2017).

Professional Service

Officer, Vice President, Texas Agricultural Cooperative Council. (January 2022 - Present).

Board Member/Foundation, Texas Agricultural Cooperative Council, Austin, Texas. (January 2021 - Present).

Service/Performance Partnerships

Texas Alliance for Water Conservation, Credit Courses and Programs, Economic Engagement, Engaged Research and Creative Activity, Experiential or Service Learning, Noncredit Classes and Programs, Program Development/Delivery/Evaluation, Public Programs, Events and Resources, Research and Creative Activity, Technical or Expert Assistance, Demonstration, research and education on irrigation conservation, Colorado. (September 1, 2012 - August 2024).

Texas Alliance for Water Conservation, Credit Courses and Programs, Economic Engagement, Engaged Research and Creative Activity, Experiential or Service Learning, Noncredit Classes and Programs, Program Development/Delivery/Evaluation, Public Programs, Events and Resources, Research and Creative Activity, Technical or Expert Assistance, Demonstration, research and education on irrigation conservation, Colorado. (September 1, 2012 - August 2024).

Texas Alliance for Water Conservation, Research and Creative Activity, Service on Boards, Committees, and Commissions, Technology transfer of irrigation conservation to area farmers., Nebraska. (September 1, 2015 - August 2016).

Service Awards and Honors

Service, Community

2021 Field to Market Trusted Advisor Spotlight Award, Field to Market. (March 2021).

GENERAL

Professional Memberships

National Association of Royalty Owners. (October 2023 - Present).

Western Agricultural Economics Association. (July 2023 - Present).

Western Agricultural Economics Association. (February 1, 2017 - Present).

Beltwide Cotton Conference. (January 6, 2017 - Present).

American Agricultural Economics Association. (September 1, 2012 - Present).

Southern Agricultural Economics Association. (September 1, 2012 - Present).

Universities Council on Water Resources. (June 1, 2012 - Present).

Development Activities Attended

Workshop, "OAP Economics Team Workshop," AgriLife Research and Extension, Lubbock, TX. (May 16, 2023 - Present).

"TTU HSI Cohort Meeting," AEC, Lubbock, TX. (April 20, 2023 - Present).

Meeting, "TACC Intern Interviews," Texas Agricultural Cooperative Council, Zoom. (April 17, 2023 - Present).

Workshop, "SAS RegenAg Biannual Meeting," Zoom. (April 12, 2023 - Present).

Meeting, "CASFER Industry Stakeholder Luncheon," CASFER, Lubbock, TX. (March 31, 2023 - Present).

Planning Meeting, "TACC Planning Meeting," Texas Agricultural Cooperative Council, Lubbock, TX. (March 30, 2023 - Present).

Roundtable Discussion, "Agricultural Economic Conditions Roundtable," Federal Bank of Dallas, Lubbock, Texas. (February 7, 2023 - Present).

Internship Interviews, "Intern Interviews (Virtual)," Texas Agricultural Cooperative Council (TACC). (April 5, 2022 - Present).

Planning Meeting, "Planning Meeting for the Cooperative Manager's Conference," Texas Agricultural Cooperative Council (TACC), Lubbock, TX. (March 31, 2022 - Present).

Workshop, "Oklahoma Master Irrigator Program," Oklahoma State University Extension, Altus, OK. (February 21, 2022 - Present).

Conference Attendance, "8th Annual Water College," Texas Alliance for Water Conservation, Lubbock, TX. (January 20, 2022 - Present).

Training, "Human Subject Training #5: After IRB Approval," Human Research Protection Program, virtual. (March 10, 2021 - Present).

Conference Attendance, "The Advancing Teaching and Learning Conference," Texas Tech University, Lubbock, Texas, USA. (March 5, 2021 - Present).

Training, "Human Subject Training #4: Recruitment and Consent Procedures," Human Research Protection Program, Virtual. (March 3, 2021 - Present).

Training, "Human Subject Training #3: Data Collection and Privacy, Confidentiality and Security," Human Research Protection Program, Virtual. (February 24, 2021 - Present).

Meeting, "2021 Co-op Executive Virtual Retreat & Learning Experience," Texas Agricultural Cooperative Council, virtual. (February 9, 2021 - Present).

Webinar, "Healthy Soils for Sustainable Cotton," Soil Health Institute, virtual. (February 9, 2021 - Present).

Workshop, "OAP Big Cotton Meeting," USDA ARS. (December 4, 2023 - December 5, 2023).

Workshop, "Economics OAP Fall Team Meeting," WTAMU, Canyon, TX. (October 12, 2023 - October 13, 2023).

Conference Attendance, "RegenAg 2023 Annual Meeting," AgriLife Research and Extension, Lone Wolf, Oklahoma. (August 28, 2023 - August 30, 2023).

Conference Attendance, "OAP Annual Meeting," USDA ARS Ogallala Aquifer Program, Amarillo, TX. (April 3, 2023 - April 5, 2023).

Conference Attendance, "TACC Annual Meeting," Texas Agricultural Cooperative Council, San Antonio, Texas. (March 11, 2023 - March 14, 2023).

Conference Attendance, "Cooperative Manager's Conference," Texas Agricultural Cooperative Council (TACC), Ruidoso, New Mexico. (July 13, 2022 - July 15, 2022).

Conference Attendance, "Joint Cooperative Meeting," Texas Agricultural Cooperative Council (TACC), Frisco, TX. (March 13, 2022 - March 15, 2022).

Conference Attendance, "International IPM Symposium," Denver, CO. (March 2, 2022 - March 3, 2022).

Conference Attendance, "Southern Agricultural Economic Association Annual Meeting," New Orleans, LA. (February 13, 2022 - February 16, 2022).

Grant Kick-off Meeting, "USDA SAS CAP Kick-off," Vernon, Texas. (December 16, 2021 - December 17, 2021).

Conference Attendance, "48th Annual Banker's Conference," Lubbock, TX. (November 19, 2021).

Conference Attendance, "Field to Market Annual Meeting," Field to Market, Las Vegas, Nevada, USA. (November 16, 2021 - November 18, 2021).

Conference Attendance, "Water Law Symposium: West Texas Water," Texas Tech Law Review, Virtual. (November 5, 2021).

Meeting, "Lubbock City Council Meeting," Lubbock, TX. (November 1, 2021).

Grant Peer Review, "USDA AFRI Foundational - Economics, Markets, and Trade," USDA, Virtual. (September 29, 2021 - October 1, 2021).

Conference Attendance, "American Agricultural Economics Association," Virtual, 12. (August 2, 2021 - August 3, 2021).

Conference Attendance, "Field to Market Plenary Meeting," Field to Market, Virtual. (June 23, 2021 - June 24, 2021).

Faculty Fellowship, "CASNR New Faculty Fellows," TTU CASNR, Lubbock, TX, USA. (September 2020 - May 2021).

Meeting, "TACC Joint Cooperative Meeting," Texas Agricultural Cooperative Council, San Antonio, Texas. (March 14, 2021 - March 16, 2021).

Conference Attendance, "2021 Ogallala Aquifer Water Summit," Virtual. (February 24, 2021 - February 25, 2021).

Workshop, "Why Wait for the RFP - Crafting a Concept Paper for Early Feedback," Office of Research and Innovation, Lubbock, TX, USA. (February 12, 2021).

Conference Attendance, "Southern Agricultural Economics Association Annual Meeting," SAEA, Virtual. (February 8, 2021 - February 9, 2021).

Conference Attendance, "7th Annual Water College," Texas Alliance for Water Conservation, Lubbock, TX. (January 21, 2021).

Conference Attendance, "Beltwide Cotton Conference," National Cotton Council, Virtual. (January 6, 2021 - January 7, 2021).

Workshop, "Grant Writing Workshop," CASNR. (February 1, 2019).