Benjamin L. Turner, Ph.D.

Curriculum Vitae

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ResearchGate: https://www.researchgate.net/profile/Benjamin-Turner-8
GoogleScholar: https://scholar.google.com/citations?user=a7iNNy8AAAAJ&hl=en

EDUCATION

2012 – 2014 (completed Aug 2014)	Doctor of Philosophy	**South Dakota State University** Biological Sciences/Natural Resource Management Dissertation: *To Plow or Not to Plow: Investigating Grassland to Cropland Conversion in the Northern Great Plains Using Systems Thinking and Dynamics* Advisor: Dr. Roger Gates
2009 – 2011 (completed May 2011)	Master of Science	**Texas A&M University-Kingsville** Agribusiness (emphasis: Ranch Management) Graduate Project: *Analyzing Past Ranch Financial Performance From Varying Marketing Scenarios For Cow Calf Production Using System Dynamics* Advisors: Drs. Roger Hanagriff and Ryan Rhoades
2005 – 2009	Bachelor of Science	**Sam Houston State University** Agriculture (*Cum Laude*) Advisor: Dr. Michael Lau

EMPLOYMENT

Academic Appointments

Sept. 2015 – present	Texas A&M University-Kingsville (Kingsville, TX)	**Associate Professor (2021-present)** *Assistant Professor (2015-2021)* 1) 75% teaching, 25% research appointment 2) Advise undergraduate and graduate students 3) Obtain external research funding 4) Create impactful student-scholar experiences
Sept. 2014 – Sept. 2015	New Mexico State University (Las Cruces, NM)	**Post-doctoral researcher** 1) System dynamics model development, evaluation, testing, and analysis of socio-hydrological acequia systems. 2) Organized/aggregated disparate data from interdisciplinary research team members. 3) Contributed to multiple high impact manuscripts and/or chapters

Work History

June 2012-Aug. 2014	Graduate Research Assistant, South Dakota State University, West River Ag Center (Rapid City, SD)
Aug. 2011–May 2012	Graduate Research Assistant, Oklahoma State University (Stillwater, OK)
May 2011–Aug. 2011	Pasture, Range, and Forage Insurance Analyst, Texas AgFinance (Robstown, TX)
Jan. 2011–May 2011	Supplemental Instructor, TAMUK Title V Programs (Kingsville, TX)
May 2010–Aug. 2010	Agricultural Operations Analyst, Hunt Oil Company (Dallas, TX)

May 2009–Jan. 2011	Laborer, Ken Martin Ranch (Normangee, TX)
May 2009–Aug. 2009	Laborer, Double J Farms (Normangee, TX)
Jan. 2009–May 2009	Lab Instructor (Forage Crops and Pasture Management), Sam Houston State University (Huntsville, TX)
Sept. 2007–May 2008	Construction crew member, Hauck Construction (Huntsville, TX)
May 2005–Oct. 2007	Demonstrator and Coach, Don Eddy Basketball (San Antonio, TX)
May 2000–May 2005	Laborer, JH Goodson Farms (Normangee, TX)

PUBLICATIONS

Peer-Reviewed Journal Articles (denotes invited, $ denotes student authors)*

$Schofield, L., $Pearson, M.E., $Newell, S., $Clackum, N., C., Turner, B.L. 2024. Why aren't more landowners enrolling in land-based carbon credit exchanges? *Rangelands*, 46(4), doi.: 10.1016/j.rala.2024.05.004

$Leal, J., $Bishop, M., $Reed, C., Turner, B.L. 2024. An exploration of groundwater resource ecosystem service sustainability: a dystem dynamics case study in Texas, USA. *Systems*, 12(12), 583. doi.: 10.3390/systems12120583

$Kodali, S., $Flores-Lopez, C., $Lobdell, I., $Kim, B., $Russell, J. C., $Michna, L., Turner, B. L. 2024. A case of one step forward and two steps back? An examination of herbicide-resistant weed management using a simple agroecosystem dynamics model. *Systems*, 12(12), 587. doi.: 10.3390/systems12120587

$Mier-Valderrama, L., $Ledezma, J., $Gibson, K., Anoruo, A., Turner, B.L. 2024. Why Is Reducing the Dead Zone in the Gulf of Mexico Such a Complex Goal? Understanding the Structure That Drives Hypoxic Zone Formation via System Dynamics. *Systems* 12(9), 326. doi.: 10.3390/systems12090326

$Meagher, M. L., Anoruo, A. O., Turner, B. L., Holland, P. W., Nelson, S. D., & Donato-Molina, M. C. 2024. Patch growth of seashore paspalum (Paspalum vaginatum) treated with inorganic fertilizer and organic biostimulant. *Open Journal of Environmental Biology* 9(1):010-014.

Anoruo, A., Turner, B.L., Garcia, M.R., Nelson, S.D., Donato-Molina, M.C. 2024. Morphological and Anatomical Development of *Solanum Lycopersicum* Seedlings Grown With Non-Conventional Water. *International Journal on Agriculture Research and Environmental Sciences* 5(1):1-4. doi: 10.51626/ijares.2024.05.00039.

$Lebaka, R., Turner, B.L., Nelson, S.D., Anoruo, A. 2023. Studies on production of Anaheim pepper in greenhouse media supplemented with organic and inorganic nutrient sources, and water conservation. *Journal of Horticultural Sciences* 18(2):357-362. doi: 10.24154/jhs.v18i2.2005.

*Turner, B.L., Goodman, M. 2023. Capturing the science behind the craft: a reporting framework to improve quality and confidence in non-simulated models. *System Dynamics Review*. doi:10.1002/sdr.1752 (Invited contribution to Special Issue: Qualitative Aspects of System Dynamics Modeling).

$Mier-Valderrama, L., $Leal, J., Perotto-Baldivieso, H.L., Hedquist, B., Menendez, H.M., Anoruo, A., Turner, B.L. 2023. Evaluating soil erosion and runoff dynamics in a humid subtropic, low stream order, southern plains watershed from cultivation and solar farm development. *International Soil and Water Conservation Research*. doi:10.1016/j.iswcr.2023.09.004.

Bhandari, A., Turner, B.L., Chumbley, S. 2023. Assessing Students and Coaches Learning Experience with Virtual Collegiate Soil Judging Contest During COVID-19 Pandemic. *Education Sciences* 13(7), doi:10.3390/educsci13070717.

$Crozier, S., $Worthington, J., $Wright, M., $Michna, L., Turner, B.L. 2023. Exploring wild horse population dynamics on US public rangelands using a simple systems simulation model. *Rangeland Ecology and Management* 88:47-61.

Cummings, D.B., Groves, J.T., Turner, B.L. 2023. Assessing the Role of Systems Thinking for Stocker Cattle Operations. *Veterinary Sciences* 10(2):69.

Atzori, A.S., Turner, B.L., Balkan, B.A. 2022. Non-linear thinking: from mental models to mathematical models in animal science. *Animal – Science proceedings* 13(4):614.

$Flores-Lopez, C., Turner, B.L., Hanagriff, R., Bhandari, A., Sinha, T. 2022. South Texas water resource mental models: a systems thinking, multi-stakeholder case study. *Journal of Contemporary Water Research and Education* 176(August):15-35.

Menendez, H.M., Brennan, J.R., Gaillard, C., Ehlert, K., Quintana, J., Neethirajan, S., Remus, A., Jacobs, M., Teixeria, I., Turner, B.L., Tedeschi, L.O. 2022. ASAS-NANP SYMPOSIUM: MATHEMATICAL MODELING IN ANIMAL NUTRITION: Opportunities and Challenges of Confined and Extensive Precision Livestock Production. *Journal of Animal Science*. doi.org/10.1093/jas/skac160

Turner, B.L. 2022. Beef Production Health Systems: Perspectives of a Trained Systems Thinker. *Veterinary Clinics of North America: Food Animal Practice* 38(2):179-200.

[$]Taylor, J.K., Stanko, R.L., Rhoades, R., McCuistion, K.C., Mathis, C., Machen, R., Turner, B.L. 2022. Can early weaning calves of first-calf heifers improve long-term herd and financial performance in a vertically-integrated beef production system? A study application using system dynamics. *Applied Animal Science* 38 (2):183-199.

Turner, B.L. 2021. Soil as an Archetype of Complexity: A Systems Approach to Improve Insights, Learning, and Management of Coupled Biogeochemical Processes and Environmental Externalities. *Soil Systems* 5(3), doi: 10.3390/soilsystems50300.

Turner, B.L., Wuellner, M., Cortus, E., Chumbley, S. 2021. A novel approach to teaching complex systems problem-solving using interdisciplinary system dynamics and a multi-university cohort model. *Systems Research and Behavioral Science*, doi.org/10.1002/sres.2778.

Turner, B.L., Goodman, M., Machen, R., Mathis, C., Rhoades, R., Dunn, B. 2020. Results of Beer Game Trials Played by Natural Resource Managers Versus Students: Does Age Influence Ordering Decisions? *Systems* 8(4):37, doi.org/10.3390/systems8040037.

Turner, B.L. 2020. Model laboratories: a quick-start guide for design of simulation experiments for dynamic systems models. *Ecological Modelling* 434:109246, doi:10.1016/j.ecolmodel.2020.109246.

*[$]Aderinto, R.F., Ortega-S, J.A., Anoruo, A.O., Machen, R., Turner, B.L. 2020. Can the tragedy of the commons be avoided in common-pool forage resource systems? An application to small-holder herding in the semi-arid grazing lands of Nigeria. *Sustainability* 12(15), doi:10.3390/su12155947

Turner, B.L., [$]Kodali, S. 2020. Soil system dynamics for learning about complex, feedback-driven agricultural resource problems: model development, evaluation, and sensitivity analysis to biophysical feedbacks. *Ecological Modelling* (doi: j.ecolmodel.2020.109050).

[$]Brewster, R.K., Henke, S.E., Turner, B.L., Tomecek, J.M., Ortega-S., A.J. 2019. Cost-Benefit Analysis of Coyote Removal as a Management Option in Texas Cattle Ranching. Human-Wildlife Interactions 13(2):10, doi.org/10.26077/2hd9-1v35

[$]Menendez, H.M., Wuellner, M., Turner, B.L., Gates, R., Dunn, B., Tedeschi, L.O. 2019. A Spatial Landscape Scale Approach for Estimating Erosion, Water Quantity, and Quality in Response to South Dakota Grassland Conversion. *Natural Resource Modeling*, 2019; e12243. Doi 10.1111/nrm.12243.

[$]Tinsley, T., Chumbley, S., Mathis, C., Machen, R., Turner, B. 2019. Managing cow herd dynamics in environments of limited forage productivity and livestock marketing channels: an application to semi-arid Pacific island beef production using system dynamics. *Agricultural Systems* 173:78-93. Doi:10.106/j.agsy.2019.02.014

Turner, B.L., M. Wuellner, Malo, D., Herrick, J.E., Dunn, B., Gates, R. 2018. Ecosystem functions in mixed cropland-grassland systems influenced by soil legacies of past crop cultivation decisions. *Ecosphere* 9 (12), e02521.

Wuellner, M.R., Gates, R.N., Turner, B.L., Menendez, H.M. 2018. Shaping Soil Watershed Stewardship Through Producer and Influencer Education: A Pilot. *Journal of Extension* 56(6), 6RIB7

[$]Eversole, C.B., Henke, S.B., Turner, B.L., Glasscock, S.N., Powell, R.L., Wester, D.B., Ballard, B.M. 2018. A theoretical population and harvest model for American alligators (Alligator mississippiensis). *Herpetological Monographs* 32(1): 22-33. ***Finalist for 2020 Best Monograph Award given by The Wildlife Society.***

Gunda, T., Turner, B.L., Tidwell, V. 2018. The Influential Role of Sociocultural Feedbacks on Community-Managed Irrigation System Behaviors During times of Water Stress. *Water Resources Research* 54(4): 2697-2714.

[$]Wayland, T., [$]West, L., [$]Mata, J., Turner, B. 2018. Why are proposed public land transfers a source of extreme conflict and resistance? *Rangelands* 40(2): 43-54, doi 10.1016/j.rala.2018.01.001**.** ***Winner, Popular Writing Award, 2019 Texas Section Society for Range Management*****.**

Turner, B.L., Fuhrer, J., Wuellner, M., Menendez, H., Dunn, B., Gates, R. 2018. Scientific case studies in land-use driven soil erosion in the central United States: why soil potential and risk concepts should be included in the principles of soil health. *International Soil and Water Conservation Research*, 6(1), March, 63-78. https://doi.org/10.1016/j.iswcr.2017.12.004.

[$]Brewster, K., Henke, S.E., Ortega-S, A.J., Tomecek, J., Turner, B. 2017. Do You Hear What I Hear? Human Perception of Coyote Group Size. *Human-Wildlife Interactions* 11(2):167-174.

Turner, B.L., Wuellner, M., Nichols, T., Gates, R., Tedeschi, L.O., and B. Dunn. 2017. A systems approach to forecast agricultural land transformation and soil environmental risk from economic, policy, and cultural scenarios in the north central United States (2012-2062). *International Journal of Agricultural Sustainability* 15(2):102-123. http://dx.doi.org/10.1080/14735903.2017.1288029.

*Turner, B.L., Menendez, H.M., Gates, R., Tedeschi, L.O., Atzori, A.S. 2016. System dynamics modeling for agricultural and natural resource management issues: review of some past cases and forecasting future roles. *Resources* 5, 40; doi:10.3390/resources5040040

Turner, B.L., Tidwell, V., Fernald, A., Rivera, J., Rodriguez, S., Guldan, S., Ochoa, C., Hurd, B., Boykin, K., Cibils, A. 2016. Modeling acequia irrigation systems using system dynamics: model development, evaluation, and sensitivity analyses to investigate effects of socio-economic and biophysical feedbacks. *Sustainability* 8(10), 1019.

Turner, B.L., Wuellner, M., Nichols, T., Gates, R., Tedeschi, L.O., and B. Dunn. 2016. Development and evaluation of a system dynamics model for investigating agriculturally driven land transformation in the north central United States. *Natural Resource Modeling* 29(2):179-228; doi: 10.1111/nrm.12087

Turner, B.L., Kim, H., and D.F Andersen. 2014. Improving Coding Procedures for Purposive Text Data: Researchable Questions for Qualitative System Dynamics Modeling. *System Dynamics Review*. 29(4): 253-263.

Turner, B.L., Wuellner, M., Nichols, T., and R. Gates. 2014. Dueling Land Ethics: Uncovering Agricultural Stakeholder Mental Models to Better Understand Recent Land Use Conversion. *Journal of Agricultural and Environmental Ethics*. 27(5):831-856, doi: 10.1007/s10806-014-9494-y

Turner, B.L., Rhoades, R.D., Tedeschi, L.O., Hanagriff, R.D., McCuistion, K.C., and B.H. Dunn. 2013. Analyzing Past Ranch Financial Performance From Varying Cow Sales and Heifer Replacement Scenarios For Cow Calf Production Using System Dynamics. *Agricultural Systems* 114: 6-14.

Conference Proceedings (Papers Peer Reviewed, [#] denotes student author)

Turner, B.L. 2024. Why is there a persistently increasing gap in the availability of livestock veterinarians in the rural U.S.? *Proceedings of the American Association of Bovine Practitioners*, Columbus, OH.

Atamer Balkan, B., Turner, B.L., Atzori, A. 2023. Cultivating System Dynamics Skills via Facilitated Learning with a Generic Livestock Grazing Management Model. System Dynamics Society International Conference, Chicago, IL. July 23-27 2023. Available at: https://proceedings.systemdynamics.org/2023/papers/P1122.pdf.

[#]Menendez, H., Wuellner, M., Gates, R., Turner, B., Dunn, B. 2017. Estimating Erosion, Water Quantity and Quality Changes in Response to South Dakota Grassland Conversion. System Dynamics Society International Conference, Cambridge, MA. July 16-20, 2017. Available at: https://tinyurl.com/yf4a7zmn.

Wuellner, M., Menendez, H., Dembkowski, D., Turner, B. 2017. Explaining and Predicting Recruitment of Yellow Perch in North American Inland Lakes. System Dynamics Society International Conference, Cambridge, MA. July 16-20, 2017. Available at: https://tinyurl.com/m4psf7ae.

Turner, B.L., Goodman, M., Machen, R., Mathis, C., Rhoades, R., Dunn, B. 2017. Lessons from a long-term Beer Game dataset played by natural resource managers: reinforcing systems education across disciplines. System Dynamics Society International Conference, Cambridge, MA. July 16-20, 2017.

Turner, B.L., Chumbley, S. 2017. Learning to Teach System Dynamics in Agricultural and Resource Management Before and After the Competence Development Framework. System Dynamics Society International Conference, Cambridge, MA. July 16-20, 2017.

Turner, B. L. 2017. Development and evaluation of an ecohydrology soil-moisture model to aid in understanding semi-arid ecosystem dynamics. System Dynamics Society International Conference, Cambridge, MA. July 16-20, 2017. Available at: https://www.systemdynamics.org/assets/conferences/2017/proceed/papers/P1073.pdf.

Turner, B.L. 2015. Grazing modeling: incorporating ecohydrology to complement predictions of ecosystem goods and services. 6th National Conference on Grazing Lands, Grapevine, TX, December 13-16th, 2015.

Turner, B.L., and V.C. Tidwell. 2015. Model evaluation and sensitivity analyses of an acequia community irrigation system dynamics model. System Dynamics Society International Conference, Cambridge, MA. July 19-24, 2015. Available at: https://proceedings.systemdynamics.org/2015/proceed/papers/P1152.pdf.

Turner, B.L., and V.C. Tidwell. 2015. Developing a System Dynamics model to investigate sustainability of traditional acequia communities of New Mexico. System Dynamics Society International Conference, Cambridge, MA. July 19-24, 2015. Available at: https://proceedings.systemdynamics.org/2015/proceed/papers/P1149.pdf

Turner, B.L., Gates, R., Nichols, T., Wuellner, M., Dunn, B.H., and L.O. Tedeschi. 2013. Investigation into Land Use Changes and Consequences in the Northern Great Plains Using Systems Thinking and Dynamics. System Dynamics Society International Conference, Cambridge, MA. July 21-25, 2013. Available at: https://proceedings.systemdynamics.org/2013/proceed/papers/P1185.pdf.

Turner, B.L. 2013. Student Initiated System Dynamics in the Academic Setting: Opportunities, Challenges and Enjoying the Process. 2013 PhD Colloquium. System Dynamics Society International Conference, Cambridge, MA. July 21-25, 2013. Available at: https://tinyurl.com/y8vno2tz.

Turner, B.L., Gates, R., Nichols, T., Wuellner, M., and L.O. Tedeschi. To Plow or Not to Plow: Investigating Grassland to Cropland Conversion in the Northern Great Plains Using Systems Dynamics. In America's Grasslands: The Future of Grasslands in a Changing Landscape. 2nd Biennial America's Grassland Conference. Manhattan, KS. August 12-14, 2013. Available at: https://tinyurl.com/ycqrw7cj.

*Conference Proceedings (Abstracts; symbols denote *invited, #student first author, $award winner)*

#Zaragoza, A., Dattamudi, S., Parker, D., Tuner, B., Nelson, S., Schuster, G. 2024/ Soil and water conservation under cattle paunch application to improve soil physiochemical properties in south Texas. ASA/CSSA/SSSA Annual Meeting, San Antonio, TX, November 2024.

Turner, B.L. 2024. Are beef x dairy ventures unintentionally eroding their own long-term market value opportunities? Veterinarians for the Advancement of Systems Thinking (VAST) Annual Conference, February 2024, Kansas City, MO.

*Menendez, H.M., Turner, B.L., Atzori, A., Brennan, J.R., Parsons, I.L., Velasquez Moreno, E.R., Husmann, A.L., Dotts, H., Tedeschi, L.O. 2024. Applying system dynamics to develop "flight simulators" for sustainable animal production. ASAS-NANP Symposia, American Society of Animal Science (ASAS) Annual Meeting, Alberta, Canada.

#Zaragoza, A., Biggs, K., Turner. B.L. 2023. A generic systems model for analyzing alternative soil nutrient management strategies in south Texas. ASA/CSSA/SSSA Annual Meeting, St Louis, MO, November 2023.

#Mier-Valderrama, L., Turner. B.L. 2023. Are solar farms totally "green"? Texas Section-Society for Range Management, Bastrop, TX, October 2023.

#Bishop, M., Bazaldua, A., Loveland, Z., Malone, D. Turner. B.L. 2023. Capturing integrity of ecological function on multiuse rangelands before and after intensive grazing management on a south Texas sandsheet ranch. Texas Section-Society for Range Management, Bastrop, TX, October 2023.

Turner. B.L., Mier-Valderrama, L. 2023. Evaluation of watershed indicators and trade-offs in ecosystem functions pre- and post-industrial solar farm installation. Soil and Water Conservation Society, Annual Conference, Des Moines, IA, August 2023.

#Mier-Valderrama, L., Turner, B.L. 2023. Evaluating soil erosion and runoff dynamics in a humid subtropic, low stream order, southern plains watershed from cultivation and solar farm

development. Soil and Water Conservation Society, Annual Conference, Des Moines IA, August 2023.

[#]Russell, J.C., Turner, B.L. 2023. Why Do Water Users in The Lower Rio Grande Valley Operate Independently Rather Than Collectively Despite Shared Water Resource Challenges Involving Future Availability? Soil and Water Conservation Society, Annual Conference, Des Moines IA, August 2023.

[#]Leal, J., Turner, B.L. 2023. If we know groundwater is a limited resource that must be managed, why are water tables in Texas continuing to decline? Soil and Water Conservation Society, Annual Conference, Des Moines IA, August 2023.

Turner, B.L., Nelson, S., Sinha, T., Hosur, M., Ozcelik, S., Ancona-Contreras, V., Perotto, H., Ren, J., Alexander, M., Amaya, J., Yilmazer, N., Clapp, L. Donato, C. 2023. Sustainable water use in South Texas: Integrating science, technology, management, and education. Subtropical Agriculture and Environments Society Annual Conference, South Padre Island, Texas, February 9-10, 2023.

[$#]Zaragoza, A.L., Schuster, G., Parker, D., Foster, J., Turner, B., Nelson, S. 2023. Evaluation of Soil Improvement Potential via Application of Cattle Paunch in South Texas Dryland Agroecosystem. Sustainable water use in South Texas: Integrating science, technology, management, and education. Subtropical Agriculture and Environments Society Annual Conference, South Padre Island, Texas, February 9-10, 2023.

[$#]Russell, J., Cloud, K., Crandell, C., Turner, B.L. 2023. Why Do Water Users in The Lower Rio Grande Valley Operate Independently Rather Than Collectively Despite Shared Water Resource Challenges Involving Future Availability? Subtropical Agriculture and Environments Society Annual Conference, South Padre Island, Texas, February 9-10, 2023.

[#]Russell, J., Turner, B.L. 2023. Review of past cases and data acquisition and organization in support of water decision-support tools in South Texas. Sustainable water use in South Texas: Integrating science, technology, management, and education. Subtropical Agriculture and Environments Society Annual Conference, South Padre Island, Texas, February 9-10, 2023.

[#]Leal, J., Turner, B.L. 2023. If we know groundwater is a limited resource that must be managed, why are water tables in Texas continuing to decline? Subtropical Agriculture and Environments Society Annual Conference, South Padre Island, Texas, February 9-10, 2023.

Atzori, A., Atamer-Balkan, B., Turner, B.L. 2022. Non-linear thinking: from mental models to mathematical models in animal science. 10th Workshop on Modelling Nutrient Digestion and Utilization in Farm Animals (MODNUT), Alghero (Sardinia, Italy), September 18-21, 2022.

Turner, B.L. 2022. Building Models for Animal Production and Management with System Dynamics Modeling. ASAS-NANP Special Workshop, American Society of Animal Science (ASAS) Annual Meeting, Oklahoma City, OK.

Turner, B.L. 2022. Systems thinking to augment applied assemblage thinking. (Dis)Connections: Exploring the conceptualisation, methodologies and promises of assemblage and systems thinking approaches in food system research. Organised by Ruralis - Institute for Rural and Regional Research, Norway as part of the SYNAGRI: Developing synergies between the bioeconomy and regional food systems for a sustainable future (Project No. 325403) funded by the Research Council of Norway, June 29-30, 2022.

[#]Traub, N.J., Turner, B.L., Brennan, L.A., Fedynich, A.M. 2022. Exploring the relationships between south Texas northern bobwhite populations and cecal worms via system dynamics. National Quail Symposium Proceedings 9:193.

[#]Michna, L.,Stewart, K.G., Turner, B.L. 2022. Are undergraduate wildlife students better equipped than their agricultural peers in managing a complex agro-ecological conflict? Initial results from a dynamic role-playing simulation. Society for Range Management International Conference, Albuquerque, NM. Available at: https://www.youtube.com/watch?v=6oKuRcW3Iq4.

[#]Stewart, K.G., Michna, L., Turner, B.L. 2022. Are undergraduate wildlife students better equipped than their agricultural peers in managing a complex agro-ecological conflict? Initial results from a dynamic role-playing simulation. Texas Chapter of The Wildlife Society, Horseshoe Bay, Marble Falls, TX.

[#]Kodali, S., Flores-Lopez, C., Chumbley, S., Turner, B.L. 2021. Despite modern advancements in cropping systems, why does herbicide resistance continue to outpace human innovation? 39th

International Conference of the System Dynamics Society, Chicago, IL, USA, July 26-30, 2021 (online).

Bhandari, A.B., Chumbley, S.B., Dominguez, L., Turner, B.L. 2021. Assessing Coaches Experience on Virtual Collegiate Soil Judging Contest during COVID-19 Pandemic. North American Colleges and Teachhers of Agriculture (NACTA) Virtual Conference.

[#]Crozier, S., Worthington, J., Wright, M., Turner, B.L. 2021. Why do U.S. rangeland managers continue to struggle with reducing wild horse populations? Society for Range Management International Conference (online). Available at: https://www.youtube.com/watch?v=iretLzv6xCE.

[#]Taylor, J.K., Stanko, R.L., Rhoades, R., McCuistion, K.C., Mathis, C., Machen, R., Turner, B.L. 2021. Can early weaning calves of first-calf heifers improve long-term herd and financial performance in a vertically-integrated beef production system? A case-study application using system dynamics. Society for Range Management International Conference (online).

Turner, B.L. 2021. Replicating grazing modeling experiments: challenges and opportunities for new insights. Society for Range Management International Conference (online).

[#]Kodali, S., Flores-Lopez, C., Chumbley, S., Turner, B.L. 2020. Managing herbicide resistance weeds: a case of one step forward and two steps back? ASA, CSSA, and SSSA International Annual Meeting, VIRTUAL, November 9-13, 2020.

Chumbley, S., Turner, B.L., Wuellner, M., Cortus, E., Rhoades, R. 2020. Measuring the Impact of a Systems Thinking Lectureship on Student Learning. North American Colleges and Teachers of Agriculture (NACTA) Conference, Las Cruces, NM, June 16, 2020.

Chumbley, S., Turner, B.L., Wuellner, M., Cortus, E., Rhoades, R. 2020. Authentic leadership in Systems Thinking. North American Colleges and Teachers of Agriculture (NACTA) Conference, Las Cruces, NM, June 16, 2020.

Turner, B.L. 2019. Building Models for Animal Production and Management with System Dynamics Modeling. ASAS-SNAP Special Workshop, American Society of Animal Science (ASAS) Annual Meeting, Austin, TX.

Menendez, H.M., Tedeschi, L.O., Turner, B.L. 2019. A modeling framework to assess the impact of the Texas Beef Cattle Water Footprint on livestock sustainability. American Society of Animal Science (ASAS) Annual Meeting, Austin, TX.

[#]Weeda, C.E., Machen, R., Mathis, C., Turner, B., Drawe, D.L., Huegele, B., Perotto-Baldivieso, H.L. 2019. Using geospatial technologies to optimize brush management on a south Texas rangeland. Society for Range Management International Conference, Minneapolis, MN, February 10 -14.

[#]Aderinto, R.F., Machen, R., Anoruo, A., Ortega-S, J.A., Turner, B. 2018. Managing cowherd dynamics in common-pool forage resource systems characterized by poor forage quality and productivity-application to small-holder herding in semi-arid Nigerian uplands. Texas Section Society for Range Management Annual Meeting, Lubbock, TX, October 10-12.

Gunda, T., Turner, B.L., Tidwell, V. 2018. Dynamic Sociocultural Feedbacks Influence Acequia Response During Water Scarcity. 63rd Annual New Mexico Water Conference, Las Cruces, NM, October 15-17, 2018.

[#]Hill, K., Campbell, K., West, L., Turner, B.L. 2018. Adaptive management practices for maintaining forage quality during climate change. TAMUK 11th Annual Javelina Research Symposium, Kingsville, TX, April 2018.

[#]West, L., Burns, H., Hamaker, Z., Aderinto, R.F., Turner, B.L. 2018. Water Conservation: Perception and Reality Between Society At-Large and Scientific Managers. TAMUK 11th Annual Javelina Research Symposium, Kingsville, TX, April 2018.

Hanagriff, R., Strong, R., Turner, B. 2018. Teaching Entrepreneurship Through Experiential Learning Activities: A Focus on Implementing Supervised Agricultural Entrepreneurship Experience (SAEE) Program. Conference on Innovation in Agricultural Education, Port au Prince, Haiti.

[$#]Aderinto, R.F., Tinsley, T., Machen, R., Ortega-S, J.A., Turner, B. 2018. Managing cowherd dynamics in common-pool forage resource systems characterized by poor forage quality and productivity-application to small-holder herding in semi-arid Nigerian uplands. Society for Range Management International Conference, Sparks, NV, January 29-February 1, 2018. (***First place winner, M.S. poster division***)

[#]West, L., Burns, H., Hamaker, Z., Aderinto, R.F. 2018. Water Conservation: Perception and Reality Between Society At-Large and Scientific Managers. Presented at the 2018 Rangeland Cup

Competition, Society for Range Management International Conference, Sparks, NV, January 29-February 1, 2018.

[#]Tinsley, T., Aderinto, R.F., Machen, R., Turner, B. 2018. Managing cowherd dynamics in environments of limited forage productivity and livestock marketing channels – applications to semi-arid island beef production systems. Society for Range Management International Conference, Sparks, NV, January 29-February 1, 2018.

[#]Eversole, C.B., Henke, S.E., Turner, B.L., Glasscock, S.N., Powell, R.L., Wester, D.B., Ballard, B.M. 2018. A theoretical population and harvest model for American alligators. Texas Chapter of The Wildlife Society Conference, February 9-11, 2018, Dallas, TX.

[#]Brewster, R.K., Henke, S.E., Ortega-Santos, A., Turner, B.L., Tomecek, J.M. 2018. Survey of Rancher Perceptions of Livestock-Predator Conflicts in Texas. Texas Chapter of The Wildlife Society Conference, February 9-11, 2018, Dallas, TX.

[#]Brewster, R.K., Henke, S.E., Ortega-Santos, A., Turner, B.L., Tomecek, J.M. 2018. Cost Analysis of Coyote Removal to Aid Cattle Production in Texas. Texas Chapter of The Wildlife Society Conference, February 9-11, 2018, Dallas, TX.

Turner, B.L, and Nelson, S. 2017. Improving rangeland management models with ecohydrologic connectivity. American Water Resources Association & Water Research Center of Tel Aviv University's 2017 International Conference: Cutting Edge Solutions to Wicked Water Problems, September 10-11, 2017.

Nelson, S., Simpson, C.R., Setamou, M., Turner, B.L, Gonzales, J., and Telagamsetty, S. 2017. Alternative On-Farm Orchard Designs in Citrus Irrigation Management that Improve Water Savings for Flood and Drip Irrigation Systems. American Water Resources Association & Water Research Center of Tel Aviv University's 2017 International Conference: Cutting Edge Solutions to Wicked Water Problems, September 10-11, 2017.

[#]Menendez, H., Avila, L., Turner, B., Atzori, A. 2017. The first year of the Agriculture and Food SIG. System Dynamics Society International Conference, Cambridge, MA. July 16-20, 2017.

[#]Zach Hamaker 2017. Economic, Policy, and Environmental Farm Management Issues in the Rio Grande Valley. Presented at the 9th Annual Javelina Research Symposium, Texas A&M University-Kingsville.

[#]Lisa West 2017. Using Systems Thinking in Agriculture to Integrate Concepts Promoted in Permaculture-systems to Facilitate Producer Adoption. Presented at the 9th Annual Javelina Research Symposium, Texas A&M University-Kingsville.

Turner, B.L., Fuhrer, J., Wuellner, M., Menendez, H.M., Dunn, B., Gates, R. Soil and water externalities stemming from watershed- and regional-scale land use changes. 2017. Society for Range Management International Conference, St. George, UT, January 29-February 2.

Turner, B.L. Development of a plant-soil-water (ecohydrology) model to aid in rangeland modeling using system dynamics. 2017. Society for Range Management International Conference, St. George, UT, January 29-February 2.

[$#]Mata, J., Wayland, T., and West, L. 2017. Identifying Unintended Ecological and Socioeconomic Consequences of Proposed Public Land Transfers. Society for Range Management's Rangeland Cup Competition (***First Place High Team; Turner, B.L. team coach***)

*Tedeschi, L.O., White, R.R., Nicholson, C.F., Turner, B.L., Fonseca, M.A., Hanigan., M.D. 2016. Traditional versus Structure-based Model Development Strategies. J. Anim. Sci Vol. 94, E-Suppl. 5/J. Dairy Sci. Vol 99, E-Suppl. 1, 613.

[$#]Menendez, H., Wuellner, M., Gates, R., Turner, B., Dunn, B. 2016. Using System Dynamics to Estimate Erosion, Water Quantity and Quality Changes in Response to South Dakota Grassland Conversion. Eastern South Dakota Water Conference, Brookings SD, October 27, 2016. (***1st place, Overall Graduate Student***)

[#]West, L., Turner B. 2016. Using Systems Thinking in Agriculture to Integrate Concepts Promoted in Permaculture-systems to Facilitate Producer Adoption. Undergraduate Research Presentation Luncheon for Presidential and McNairs Scholars, Texas A&M Univ.-Kingsville, October 24, 2016.

[#]Menendez, H., Wuellner, M., Gates, R., Turner, B., Dunn, B. 2016. Water and Soil Impacts from Grassland Conversion. Soil Stewardship for Healthy Landscapes Workshop, South Dakota (June 14-16).

[#]Menendez, H., Wuellner, M., Gates, R., Turner, B., Dunn, B. 2016. A Framework for Estimating Erosion Changes in Response to South Dakota Grassland Conversion using System Dynamics Methodology. North Central Region Water Conference, Lincoln NE, March 21-23, 2016.

[#]Brennan, J., Menendez, H., Chowanski, K., Turner, B., Hendrix, M., Koehler, C. 2016. Vegetation recovery on South Dakota Mixed Grass Prairie after Prairie Dog Removal. Society for Range Management 2016 Annual Meeting, Corpus Christi, TX. (poster)

[#]Menendez, H., Wuellner, M., Gates, R., Turner, B., Dunn, B. 2016. Estimating Historical Erosion Changes in South Dakota Due to Grassland Conversion. Society for Range Management 2016 Annual Meeting, Corpus Christi, TX. (poster)

[$#]West, L., Turner, B. 2016. Using Systems Thinking in Agriculture to Integrate Concepts Promoted in Permaculture-systems to Facilitate Producer Adoption. 14th Annual Texas A&M University System Pathways Student Research Symposium, Prairie View A&M, Prairie View, TX, November 3-4, 2016. (***2nd place, Graduate Agriculture section***).

[#]Sabie, R., Cruz, J.J., Turner, B.L., Moreno, A.L. and I. Hewitt. 2015. Land use assessment of acequia irrigated valleys using multi-date aerial imagery. American Water Resources Association Annual Conference, Denver, CO. November 16-19, 2015. (presentation)

[#]Sabie, R., Fernald, A.G., Gay, M., Turner, B., Cruz-Chairez, J.J., Moreno, A.L., and I. Hewitt. 2015. Estimating land cover in acequia-irrigated valleys using historical imagery. 60th Annual New Mexico Water Conference, Coloring Outside the Lines: Can science help us be creative and innovative in managing our water?, Taos, NM. October 7-9, 2015. (poster and abstract)

Turner, B.L. and V.C. Tidwell. 2015. Acequias and uncertainty: testing community resiliency to climate change using system dynamics models. American Water Resources Association Annual Conference, Denver, CO. November 16-19, 2015.

Turner, B.L., Ducheneaux, K., Gates, R., Hoogenstraat, G. and A. Smart. 2014. Ranch management strategies to cope with impacts of watershed-scale externalities. National Science Foundation's Food, Energy, and Water NEXUS Workshop, Rapid City, SD, October 19, 2015.

Turner, B.L. and R. Gates. 2014. Resource Conservation, Land Use Legacies, and Management Perspectives in Great Plains Agroecosystems. 69th Annual Soil and Water Conservation Society Annual Meeting, Lombard, IL, July 27-30, 2014.

Turner, B.L., Gates, R., Hoogenstraat, G. and A. Smart. 2014. Ranch management strategies to cope with impacts of watershed-scale externalities. 69th Annual Soil and Water Conservation Society Annual Meeting, Lombard IL, July 27-30, 2014.

Turner, B.L., Wuellner, M. and R. Gates. 2014. Linking Science and Practice: Applying Case Study Methodology to Investigate Resource Management in Complex Systems. 67th Annual Society for Range Management International Meeting, Technical Meeting and Trade Show. Orlando, FL.

Turner, B.L., Wuellner, M., Nichols, T. and R. Gates. 2014. Development of a system dynamics model for assessing land use change in the Northern Great Plains. 67th Annual Society for Range Management International Meeting, Technical Meeting and Trade Show. Orlando, FL.

Turner, B.L., Gates, R., Nichols, T., Wuellner, M. and L.O. Tedeschi. 2013. To Plow or Not to Plow: Investigating Grassland to Cropland Conversion in the Northern Great Plains Using Systems Dynamics. 66th Annual Society for Range Management International Meeting, Technical Training and Trade Show. Oklahoma City, OK.

Turner, B.L., Gates, R., Nichols, T., Wuellner, M. and L.O. Tedeschi. 2013. To Plow or Not to Plow: Investigating Grassland to Cropland Conversion in the Northern Great Plains Using Systems Dynamics. Black Hills Botanist and Ecologist Workshop, Rapid City, South Dakota, March 7, 2013.

Turner, B.L., Gates, R., Nichols, T., Wuellner, M. and L.O. Tedeschi. 2013. To Plow or Not to Plow: Investigating Grassland to Cropland Conversion in the Northern Great Plains Using Systems Dynamics. Society of Range Management Annual Meeting, Oklahoma City, OK.

Turner, B.L., Gates, R., Nichols, T., Wuellner, M. and L.O. Tedeschi. 2012. To Plow or Not to Plow: Investigating Grassland to Cropland Conversion in the Northern Great Plains Using Systems Dynamics. Presented at Colorado Society of Range Management Symposium: Strategic Grazing Management for Complex Adaptive Systems, Fort Collins, Colorado. November 29-30, 2012.

Turner, B.L., Tedeschi, L.O., Hanagriff, R.D. and R.D. Rhoades. 2011. A revised cow-calf model to evaluate the dynamics of different marketing strategies. Can. J. Anim. Sci. 91: 715-727. Presented at Animal Science Modelers Group Annual Meeting. July 9, 2011. New Orleans, LA.

Turner, B.L., Tedeschi, L.O., Hanagriff, R.D. and R.D. Rhoades. 2010. A cow-calf model to evaluate the dynamics of different marketing strategies. Can. J. Anim. Sci., 90(4): 595-605. Presented at Animal Science Modelers Group Annual Meeting. July 10, 2010. Denver, CO.

Rhoades, R.D., Dunn, B.H., Tedeschi, L.O., Hanagriff, R.D., Turner, B.L., Sawyer, J.E. and K.C. McCuistion. 2010. Analyzing Past and Forecasting Future Ranch Financial Performance From Production, Resource, and Financial Perspectives. Proceedings from the Annual Meetings of the Southern Journal of Agricultural Economics. Journal of Agriculture and Applied Economics 42(3):599. Presented at Southern Association of Agricultural Sciences (SAAS) Meeting, Orlando FL., February 6-9, 2010.

Book chapters

Turner, B.L., Tidwell, V. 2020. Connection and Integration: Using System Dynamics Modeling to Explore Acequia System Resiliency. In Rosenberg, A., Guldan, S., and Fernald, A.G. (eds). *Acequias of the Southwestern United States: Elements of Resilience in Community Based Irrigation Systems*, New Mexico Agricultural Experiment Station, Research Report 796. Available at https://aces.nmsu.edu/pubs/research/water/RR796.pdf.

Manuscripts in Development or in Review

Turner, B.L., Gates, R., M. Wuellner, H. Menendez, J. Rivera. Why does it take so long for indigenous knowledge of local resource managers to become common knowledge for the researcher scientist? (target journal: *Journal of Extension* or *Ecology and Society*)

Popular Press, Extension, and/or Non-peer reviewed contributions and presentations

Turner, B.L. 2025. A systems approach to analyzing a complex ranching opportunity: carbon credit markets. King Ranch® Institute for Ranch Management, Newsletter, Volume 20, Issue 2 (Winter). Available at: https://issuu.com/king-ranch-institute/docs/krirm_winter_2025_newsletter_online.

Turner, B.L. 2023. Financial Evaluation of Precision Rangeland Grazing Investments. South Dakota State University, West River Ag Center, 2023 Precision Grazing School, Wall, SD, July 31-Aug 2.

Turner, B.L. 2022. Legacies for Good. National Cattlemen's Foundation.

Turner, B.L. 2021. Agricultural and Food Modelers Modelers Produce a Crop of Conference Contributions. *wiSDom System Dynamics Blog*, available at https://systemdynamics.org/isdc-2021-highlights-agricultural-and-food-modelers-produce-a-crop-of-conference-contributions

Turner, B.L. 2019. Natural Resource Management for Agricultural Production. Texas Ag and Industries Association regional meeting, Kingsville, TX. September 19, 2019.

Gates, R., Turner, B., Wuellner, M, Dunn, B. 2016. *Forecasting Unintended Consequences of Grassland Conversion*, in On Pasture; available at onpasture.com/2016/05/30/forecasting-unintended-consequences-of-grassland-conversion/

Gates, R., M. Wuellner, B. Turner. 2016. Soil Stewardship for Healthy Landscapes. Accessible at http://igrow.org/livestock/beef/soil-stewardship-for-healthy-landscapes/

Gates, R., B. Turner, M. Wuellner, B. Dunn. 2016. Forecasting Unintended Consequences of Grassland Conversion. Accessible at http://igrow.org/livestock/beef/forecasting-unintended-consequences-of-grassland-conversion/

Turner, B.L. and R. Gates. 2014. Grassland conservation should remain high priority. Grassroots Vol. 16 Issue 7. Accessible at http://www.sdgrass.org/uploads/1/8/6/5/18654664/november_2014.pdf.

Turner, B.L. 2013. Systems Thinking Offers a New Approach to Agricultural Education and Research. The Connector (iseesystems® quarterly newsletter), Spring 2013. Accessible at: https://www.iseesystems.com/connector/2013/spring.aspx

Other scientific presentations to learned societies

Turner, B.L. 2024. Making thinking explicit: a systems approach for natural resources management. Bair Ranch Seminar Series in Ranch Management, Montana State University. Available at: https://tinyurl.com/4ay9zkwf.

Turner, B.L. 2023. Unintended consequences: stories from the soil underfoot. Research Seminar for TAMUK Department of Environmental Engineering. Feb 17, 2023.

Turner, B.L. 2022. Can early weaning calves of first-calf heifers improve long-term herd and financial performance in a vertically-integrated beef production system? Presentation to the Veterinarians Advancing Systems Thinking (VAST) online monthly meeting

Turner, B.L. 2020. Model laboratories: a quick-start guide for the design of simulation experiments for dynamic systems models. Presentation to the Agriculture and Food Special Interest Group of the System Dynamics Society, September 24, 2020. Available at: https://www.youtube.com/watch?v=AmM0Mw24Z_c.

Turner, B.L. 2020. How can the Agriculture & Food SIG capitalize on our existing foundation and facilitate greater collaboration among members? Presentation to the Agriculture and Food Special Interest Group of the System Dynamics Society, April 2, 2020.

Turner, B.L. 2020. Curriculum Development for Wicked Problem Solving. Presentation to the Agriculture and Food Special Interest Group of the System Dynamics Society, February 27, 2020. Available at: https://www.youtube.com/watch?v=XGZLvIlP-uo.

Turner, B.L. 2017. Development of a plant-soil-water (ecohydrology) model to aid in predictions of rangeland ecosystems goods and services. Presentation to the Agriculture and Food Special Interest Group of the System Dynamics Society, February 28, 2017.

GRANTS, CONTRACTS, AND MONETARY AWARDS

2024-2027	Texas Water Development Board. "Effects of cover crops, organic amendment, and tillage practices on soil water dynamics" [PI Sanku Dattamudi, Co-PIs Saoli Chanda and Benjamin Turner],	$256,619
2024-2027	USDA Higher Education Challenge. "Strengthening Faculty for Teaching the Next Generation of Wicked Problem Solvers" [PI, Co-PIs Steven Chumbley and Sanku Dattamudi (TAMUK), Erin Cortus (South Dakota State), Melissa Wuellner (University of Nebraska-Kearney)], grant award number: 2024-70003-43672	$733,343 (TAMUK $348K)
2024-2026	Southern SARE Fostering climate-friendly sustainable farming through integration of biochar and cover crops in Texas and Florida [PI: Dattamudi, S., Co-PI Turner, B.L., Schuster, G.]	$399,220
2023-2025	USDA ARS Southern Plains Climate Hub- Developing Southern Plains Region Management And Resiliency Tools for Agricultural Systems (SMART Ag Systems; PI Turner, BL)	$200,000
2023-2028	USDA EWA Promote sustainable Agriculture Concepts in Education through multidisciplinary Research and Pedagogical Trainings (PACE) (M.M. Hossain, PI; Li, H., Jin, K., Sowell, M., Turner, B.L. co-PIs)	$500,000
2020-2025	USDA REEU Multicultural Scholars Program- Research and extension experience in Energy and the Environment across Agricultural Disciplines (RE^2AD) (PI- Dr. H. Li, Co-PIs B. Turner, K. Jin, J. Ren, D. Ramirez), grant award number: 2020-67037-30652	$500,000
2019-2024	NSF CREST Center for Sustainable Water Use (CREST-SWU) (PI Lee Clapp, Co-PIs Tushar Sinha, Selahattin Ozcelik, Shad Nelson, Benjamin Turner), grant award number: 1914745.	$5,000,000
2019	Iowa State University, contract speaker, Systems Thinking for Natural Resource Problem Solving	$3,500
2019	University of Missouri, contract speaker, Systems Thinking for Food Animal Veterinarians	$3,500
2018-2020	USDA-NIFA Non Land Grant Colleges of Agriculture: Enhancing Agriculture Mechanics Education & Curriculum in Higher Education (Ag MECH Ed)	$147,574

	(S. Chumbley, PI; Co-PIs B.L. Turner and G. Schuster), grant award number: 2018-70001-28757	
2018-2023	USDA Higher Education Challenge. Curriculum Development for Wicked Problem Solving [PI, Co-PIs Steven Chumbley (TAMUK), Ryan Rhoades (Colorado State), Erin Cortus (South Dakota State), Melissa Wuellner (University of Nebraska-Kearney)], grant award number: 2018-70003-27664	$297,353 (TAMUK $146K)
2016	TAMUK Summer Research Development Support	$3,000
2016	McNair's Undergraduate Scholar Faculty Sponsor- Ms. Lisa West	$2,700
2016	TAMUK Undergraduate Research Grant: Assessment of Agricultural Curricula in Circulation in South Texas Homeschools	$2,900
2015	TAMUK College of Agriculture, Natural Resources, and Human Sciences Faculty Travel Support Award	$500

OTHER GRANTS AND MONETARY AWARDS PURSUED (PENDING OR NON-AWARDED)

2024	CREST Phase 2 *Invited Proposal*: Center for Research, Education, Application, and Technology Transfer Excellence for Sustainable Water in Agriculture (CREATE) [PIs: Hosur, M., Sinha, T., Ren, J., Turner, B.L., Dattamudi, S.] *Pending decision*	$7.5 mil
2024	USDA NIFA Inter-disciplinary Engagement in Animal Systems (IDEAS): Mitigating Bovine Respiratory Disease in US Beef Systems through Decision Modeling and Precision Livestock Technologies [PI Dr. Karun Kaniyamattam (TAMU), Co-PI Benjamin Turner]	$1.5 mil ($172,519 TAMUK)
2024	100K CLIMA – Promoting Climate-Smart Practices on Colombian-US Rangelands Using Systems-Based Education [PI Donoto, C., Co-PIs Hernandez, F., Nelson, S., Turner, B.L., Staiger, A.E., Sanchez, E.]	$50,000
2023	CREST Phase 2 *Preproposal*: Center for Research, Education, Application, and Technology Transfer Excellence for Sustainable Water in Agriculture (CREATE) [PIs: Hosur, M., Sinha, T., Ren, J., Turner, B.L., Dattamudi, S.]	n/a
2023	USDA NIFA SCRI Legume mixture intercropping in citrus orchard: an approach to increase production efficiency, improve soil health, and overall agricultural sustainability [PI Dattamudi, S; Co-PIs Schuster G, Kunta M, Laughlin D, Turner BL]	$424,779
2023	USDA NIFA SCRI Legume mixture intercropping in citrus orchard: an approach to increase production efficiency, improve soil health, and overall agricultural sustainability [PI Dattamudi, S; Co-PIs Turner BL]	$2.9 mil
2022	USDA-NIFA NEXTGEN PIPELINE for HSI ACES: Promoting Innovation and Professionalism through Experential Learning and Investigation for NEXTGEN Excellence for Hispanic Serving Institution AgriCulture and Engineering Students [S. Nelson (PI), Stanko, R., Donato, C., Machado T., Chumbley, S., Ballard, B., Schuster, G., Rideout-Hanzak, S., Turner, B., Abugho, S., Ancona-Contreras, V., Cabrera, J (Co-PIs), not awarded]	$20 mil ($11 mil TAMUK)
2022	USDA-NIFA NEXTGEN- Texas Southmost College Next Gen Ag Professional Initiative [M. Abusalim (Texas Southernmost College, PI), Chumbley, S., Turner, B.L (TAMUK Co-PIs), not awarded]	$4,582,837 ($873k TAMUK)
2022	USDA-NIFA Promote sustainable Agriculture Concepts in Education through multidisciplinary Research and Pedagogical Trainings [M. Hossain (PI), H. Li, K. Jin, M. Sowell, B. Turner (Co-PIs), not awarded]	$500,000
2022	USDA-NIFA Higher Education Challenge- Strengthening Faculty for Teaching the Next Generation of Wicked Problem Solvers [Lead, PI: Turner, B.L, Co-PIs: Chumbley, S. Cortus, M. (Minnesota), Wuellner, M. (Nebraska-Kearney), not awarded]	$750,000

2022	Southern SARE- Measuring Adaptive Capacity in Southern Ranching Systems: Integration of Soils, Plants, Animals, Financials, and People for Enhanced Decision Support (preproposal, PI Turner, Co-PIs R. Machen, A. Ortega, R. Stanko, not awarded)	$400,000
2021	USDA-NIFA Higher Education Challenge- Strengthening Faculty for Teaching the Next Generation of Wicked Problem Solvers [Lead, PI: Turner, B.L, Co-PIs: Chumbley, S. Cortus, M. (Minnesota), Wuellner, M. (Nebraska-Kearney)]	$750,000
2020	NSF Artificial Intelligence: AI in Agriculture Institute: Multi-scale Multi-physics Guided AI Systems for Smart Sustainable Agriculture (Lead: B. Mohanty, TAMU-College Station, TAMUK Leads: T. Sinha, B. Turner).	$5 mil. (TAMUK $400,000)
2020	Southern SARE- Measuring Adaptive Capacity in Southern Ranching Systems: Integration of Soils, Plants, Animals, Financials, and People for Enhanced Decision Support (preproposal, PI Turner, Co-PIs A. Bhandari & R. Machen and J. Sawyer, KRIRM, Full proposal not awarded)	$399,000
2020	Southern SARE- Equipping Agricultural Producers with a Systems Thinking Approach to Problem Solving (preproposal, PI Tuner, Co-PIs C. Mathis, KRIRM, and Roger Gates, Univ. of Georgia; Full proposal not invited)	N/a
2020	Southern SARE- Assessing Soil Health under Different Land Use Systems: A Comparison Study of Seven Land-Uses Systems in South Texas (preproposal, PI Ammar Bhandari, Co-PIs Jamie Foster, TAMU Agrilife, & B. Turner; Full proposal not invited)	N/a
2020	USDA-NIFA Multicultural Scholars Program- Javelina Agriculture, Career Knowledge and Educational Development (JACKED) Program (PI Steven Chumbley, Co-PIs A. Bhandari, A. Umphres-Lopez, B. Turner, not awarded)	$180,000
2020	USDA-NIFA National Needs Fellowship- Transdisciplinary Graduate Training on Data Driven Decision Making across Agricultural Disciplines (PI H. Li; Co-PIs K. Jin, J. Ren, D. Ramirez, B. Turner; not awarded)	$243,500
2020	Spencer Foundation- A systems approach to improving learning and dynamic decision-making capabilities in agricultural and natural science students (PI. B. Turner, collaborators: Steven Chumbley and Dana Byrd, Full proposal not invited).	$168,244
2019	USDA-NIFA Non Land Grant Colleges of Agriculture. Enhancing Agriculture Research and Education Skills in Higher Education (PI Ammar Bhandari, Co-PIs, B. Turner and S. Chumbley; Application denied).	$149,881
2019	USDA AFRI Sustainable Ag Systems- Improving Root Zone Soil Water and Nutrient Availability, Farm Economics, and Regional Policy for Sustainable Crop Production in Gulf Coast States (PI- B. Mohanty, Texas A&M; TAMUK Co-PIs B. Turner and T. Sinha; Application not invited)	N/a
2019	Southern SARE- Evaluating Alternative Ranch Management Strategies Using a Systems Approach: Integration of Soils, Plants, Animals, Financials, and People for Improved Decision-Making on Ranches (Preproposal, PI, Co-PIs Drs. R. Machen and J.A. Ortega-S.)	N/a
2019	USDA Hispanic Serving Institutions- SHIFT: Supporting Hispanic Student Innovations for Food System Transformation (PI, Co-PIs Drs. S. Chumbley, G. Schuster, R. Hanagriff)	$250,000
2018	USDA-NIFA FACT: Assembling of a Dataset of Water Utilization by Beef Cattle and Development of a Decision-Support Tool to Assist with Sustainable Livestock Production in the United States (PI Luis Tedeschi, Texas A&M; TAMUK Co-PI Benjamin Turner)	$1.5 million ($75K TAMUK)

2018	USDA-NIFA Sustainable Agriculture Systems (SAS) Improving root zone soil water and nutrient availability, farm economics, and regional policy for sustainable crop production in Gulf Coast States (PI Binyak Mohanty, Texas A&M lead; TAMUK co-PIs Tushar Sinha, Benjamin Turner)	$5 million ($500k TAMUK, $172K TAMUK ag)
2018	NSF INFEWS A multidisciplinary modeling framework to enhance reliability and resiliency of Food-Energy-Water Systems in the corn production areas of Kansas and Texas High Plains (PI Tushar Sinha, Co-PI B. Turner)	$2.5 mil ($500k TAMUK)
2018	USDA-NIFA Research and Extension Experiences for Undergraduates (REEU): Fostering the Next Generation of Agricultural Communicators and Educators through Research and Extension Experiences (PI K. Hall and T. Sorensen, Utah State; Co-PIs Chumbley and Turner, TAMUK)	$200,727 (TAMUK $71K)
2018	USDA-NIFA Sustainable Agriculture Systems (SAS), The Intermountain West Water Collaborative: a systems approach to increased agricultural productivity, ecosystem health and community adaptive capacity through coordinated landscape management [PI Sam Fernald, New Mexico State; Co-PIs McEvoy (MSU), Safeeq (UC-Merced), Turner (TAMUK), Paige (UW), Megdal (UA), Ochoa (OSU), Neilson (USU), Yoder (WSU), Kolok (UI), Harpold (UN), Tidwell (Sandia Nat. Labs)]	N/a
2018	Southern SARE- Defining Sustainable Ranching Using A Systems Approach: Integration of Soils, Plants, Animals, Financials, and People. (Principal Investigator, Co-PIs R. Machen and J.A. Ortega-S.)	$275,000
2017	Southern SARE- Defining Sustainable Ranching Using A Systems Approach: Integration of Soils, Plants, Animals, Financials, and People. (Principal Investigator, Co-PIs R. Machen and J.A. Ortega-S.)	$286,880
2017	USDA Water for Food Production Systems. Systems Environment Analyses for Sustainable Optimal ProductioN (SEASON), Utah State PI ; TAMUK PI Catherine Simpson, Co-PIs Turner, S. Nelson, L. Camacho	$5.4 mil ($800k TAMUK)
2017	USDA NIFA Resilient Agroecosystem. An integrated approach for enhancing resilience of rangeland agroecosystems stressed by rapid juniper expansion in the western U.S. (Co-PI with PI Carlos Ochoa of Oregon State University).	$1.2 mil ($85K TAMUK)
2017	National Science Foundation's Center for Research Excellence in Science and Technology (CREST) Water-Energy-Food Sustainability (WEFS) Center at Texas A&M University-Kingsville (Co-PI with William Worek et al.)	$5 million
2016	USDA Agriculture and Natural Resources Sciences for Climate Change and Variability Challenge Area. Management adoption of conservation practices to enhance resiliency to climate change in south Texas	$150,000
2016	USDA Water for Agriculture Challenge. Identifying Barriers To Management Adoption Of Conservation Practices To Enhance Resiliency To Water Scarcity In South Texas (Principal Investigator)	$150,000
2016	Pre-proposal: Social and hydrologic CONections to promote Ecosystem and Community Thrivability along irrigated river systems; National Science Foundation Projects in Integrated Research and Education (Co-PI; PI Sam Fernald-New Mexico State)	$4.3 mil.
2016	TAMUK University Research Award: Grazing forage quality: when is good 'good enough'? Analysis of rancher mental models of forage quality in situ (PI, with Co-PI Alfonso Ortega)	$12,500
2016	USDA/(NIFA)-HEC: Reaching Underrepresented Students in Agriculture Through Research Projects (Co-PI, with lead S. Chumbley (PI), D. Ruppert, S. Nelson, T. Machado)	$192,974

2016	USDA/(NIFA)-HEC: Advancing Students Systems Thinking Skills (ASSYSTS) in Agriculture and Natural Resource Sciences (Lead PI, with Co-PIs R. Rhoades, D. Ruppert, G. Schuster, A. Anoruo, R. Stanko, S. Chumbley, S. Nelson)	$149,989
2016	USDA/(NIFA)-HSI: Improving Hispanic Undergraduate Retention by Preparing Parents as Advocates for College Success in Agricultural and Human Sciences Academic Disciplines (Co-PI with T. Machado (PI), N. Bell, T. Oblad, W. Kuvlesky)	$275,000
2016	USDA/(NIFA)-HSI: CULTURe: Cultivating Underrepresented Leaders Through Undergraduate Refinement of Leadership Skills (Co-PI with S. Chumbley (PI) and R. Rhoades)	$274,454
2016	National Science Foundation-Innovations in Graduate Education: Training 'Wicked' Problem Solvers for Contemporary Natural Resource Issues (Co-PI with South Dakota State University, R. Gates and M. Wullner PIs), and TAMUK, R. Rhoades and S. Chumbley)	$491,759
2015	USDA Water for Agriculture Challenge. Identifying Barriers To Management Adoption Of Conservation Practices To Enhance Resiliency To Water Scarcity In South Texas (Co-Principal Investigator, Co-PI Dr. Ryan Rhoades)	$149,465
2015	USDA-NIFA HSI Grant Program. Building a CULTURe of Leadership Skills (Co-PI, Dr. Ryan Rhoades (PI), S. Nelson, G. Schuster, D. Ruppert, T. Machado, K McCuistion (Co-PIs))	$274,715
2015	USDA-NIFA HEC Grant. From Teaching to Learning: Using Systems Thinking to Improve Learning Outcomes in Natural Resource Sciences. (Co-PI, Dr. Ryan Rhoades (PI), S. Nelson, G. Schuster, D. Ruppert, A. Anoruo, R. Stanko (Co-PIs))	$149,975
2013	Department of the Interior, U.S. Fish and Wildlife Service's Plains and Prairie Potholes LCC – Improving Resource Conservation in Northern Great Plains Grasslands: Estimating losses, measuring consequences, and engaging stakeholders. (Co-principal Investigator, Co-PI Dr. Roger Gates; Application denied)	$101,844
2013	Pheasants Forever Graduate Research Stipend (Application denied)	$500
2012	National Aeronautics and Space Administration, South Dakota Space Grant Consortium Graduate Student Research Grant – Investigating grassland to cropland decisions in NGP (Application denied)	$14,000

TEACHING EXPERIENCE

*Courses Taught (current semester courses in **bold**)*	*Modality*
AGBU 2301 Principles of Agribusiness Management	Web-enhanced / Hybrid
AGBU 2317 Introduction to Agricultural Economics	Web-enhanced
AGBU 3310 Food and Ag Product Retailing	Hybrid
AGBU 3320 Systems Thinking for Agriculture	Face-to-face/Hybrid/Online
AGBU 3330 Decision Support Tools for Ag	Web-enhanced / Hybrid
AGBU 3366 Agricultural and Food Policy	Face-to-face/Hybrid/Online
AGBU 3371 Farm and Ranch Business Management	Face-to-face
AGBU 3375 Water Resource Management Issues	Hybrid
AGBU 3380 Environmental Economics	Online
AGBU 3390 Readings in Strategic Management	Online
AGBU 3995 Internship	Online
AGBU 4325 Rangeland Resource Economics	Face-to-face/Hybrid/Online
AGBU 4360 Agricultural Price Analysis	Face-to-face

AGBU 4371 Strategic Agribusiness Management	Face-to-face/Hybrid/Online
AGBU 4395 Problems in Agribusiness	Face-to-face
AGBU 5305 Graduate Research Project	Face-to-face
AGBU 5306 Thesis	Face-to-face
AGSC 5390 Advanced Agricultural Issues	Online
AGBU 5390 Agriculture and Ecological Modeling	Face-to-face
AGBU 5395 Advanced Problems in Agribusiness	Face-to-face
ENVS 5360 Environmental Economics for Sustainable Development	Hybrid
RAMT 5351 A Systems Approach to Natural Resource Problem Solving	Face-to-face

INVITED LECTURES, CO-TEACHING, OR WORKSHOPS

Sponsor/Course, institution, and date	*Role*	*Faculty or Sponsor*
Making thinking explicit: A systems approach to natural resources problem solving; Bair Ranch Seminar Series, Montana State University	Invited Lecturer	Dr. Rachel Frost, Dept. of Animal and Range Science
Keynote Presentation- Rural livestock veterinarian shortage; Veterinarians for the Advancement of Systems Thinking (VAST) Annual Meeting, Kansas City, MO	Student speaker mentor- Paul Quin, Luis Mier-Valderrama, Karl Gibson, Jacey Lorimer	Dr. John Groves (VAST)
Integrating Climate Science in University Curriculum; USDA Climate Smart Agriculture Student Symposium, Kingsville TX	Panel speaker	Dr. Jianzhong Su, University of Texas-Arlington
Systems Analysis of Acequia Irrigation Systems; Community and Science Collaborative Workshop: The Future of Acequia Research; January 14, 2021	Invited Research Presentation https://tinyurl.com/5f6vm45x	New Mexico Acequia Association
Soil System Dynamics for Complex Agricultural Resource Problems, Texas A&M University, Depts. of Biological and Agricultural Eng., Civil Eng., and Water Management and Hydrologic Sciences; 08/26/2020	Invited Research Lecturer	Dr. Binayak Mohanty, Dept. of Biological and Agricultural Eng.
A systems approach to soil and water conservation, South Dakota State University; 11/22/2019	Invited Research Lecturer	Dr. Michelle Dudash, Dept. of Natural Resource Management
Systems Thinking for Natural Resources Problem Solving; 11/19-20/2019	Workshop (2 days) facilitator/speaker	Dr. Jackie Comito, Director, Iowa Learning Farms
A systems approach to soil and water conservation, Iowa State University; 11/18/2019	Invited Research Lecturer https://tinyurl.com/34drwnja	Dr. Jackie Comito, Director, Iowa Learning Farms
Systems Thinking for Food Animal Veterinarians, University of Missouri, College of Veterinary Medicine; 07/18-19/2019	Workshop (2 days) facilitator/speaker	Dr. Craig Payne, Extension Director, Missouri College of Veterinary Medicine
RWSC 3380 Rangeland Improvements; 11/07/2019	Invited Lecture: Economic Analysis of Private Rangeland Improvements	Dr. Eduardo A. Gonzalez-Valenzuela
RWSC 3380 Rangeland Improvements; 10/25/2018	Invited Lecture: Economic Analysis of Private Rangeland Improvements	Dr. Sandra Rideout-Hanzak
System Dynamics Society's Agriculture and Food Special Interest Group; 02/28/2017	Invited Lecture: Soil-water modeling to feedback loop impact analysis	Dr. Alberto Atzori, University of Sassari, Italy

James G. Teer Conservation Leadership Institute's Early Career Professional Program; Texas Chapter of the Wildlife Society; 09/15/2016	Invited Lecture: Conceptual system dynamics model development in Vensim™	Dr. Selma Glasscock
HON 383 The Wicked Problem of Land Conservation Past, Present, and Future, South Dakota State Univ. 09/12/2016	Invited Lecture: Alternative futures in a changing landscape: the NGP soil health challenge	Dr. Melissa Wuellner
ANSC 689 System Dynamics of Agriculture and Life Sciences, Texas A&M, 01/15/2016	Invited Lecture: Gettin' In and Stayin' In: Creating and Sustaining Systems Model and Analysis Research Opportunities	Dr. Luis Tedeschi
John B. Armstrong Lectureship in Systems Thinking / RAMT 5350 Systems Thinking for Natural Resource Problem Solving, 2015 & 2016	Invited Lecture: SD Modeling of Land Use Change in the Northern Great Plains: Economic, Policy, and Cultural Scenarios	Dr. Clay Mathis (with Michael Goodman, Innovation Associates)
GEOS 697 Interdisciplinary Modeling: Water-related issues and Climate change, NMSU, Nevada-Reno, and Idaho State EPSCoR, June 6-10, 2015	Lecturer and Project Leader: Acequia Irrigation Communities	Dr. Laurel Saito (Nevada-Reno) & Dr. Sam Fernald (NMSU)
ANSC Introduction to Ranch Management, November 2012	Invited Lecture: Interconnectedness of grazing and forage management decisions	Dr. Sandy Smart

GRADUATE STUDENT ADVISING (WITH TITLE AND YEAR COMPLETED OR ESTIMATED COMPLETION TIME)

CHAIR OR CO-CHAIR	YEAR
Jase Taylor, *A System Dynamics Model For Determining The Feasibility of Early-Weaning Calves on First-Calve Heifers at Deseret Cattle and Citrus* (M.S. thesis, TAMUK, co-chair with Dr. Clay Mathis, completed)	2016
Ty Tinsley, *Managing cowherd dynamics in environments of limited forage productivity and livestock marketing channels – applications to semi-arid island beef production systems* (M.S. thesis, TAMUK, chair, completed)	2018
Rhoda Aderinto, *Managing cowherd dynamics in common-pool forage resource systems characterized by poor forage quality and productivity- application to small-holder herding in semi-arid Nigerian uplands* (M.S. thesis, TAMUK, chair, completed)	2018
Marlyn Saucado, *Results of a survey to analyze rancher and consultant mental models related to rangeland monitoring and assessment practices* (M.S. graduate project, TAMUK, chair, completed)	2019
Chris Flores-Lopez, *Stakeholder Mental Models of Sustainable Water Use in South Texas* (M.S. thesis student, TAMUK, chair, completed)	2021
Lane Michna, *The Use of Model Supported Case Studies in Undergraduate Agribusiness Courses* (M.S. graduate project, TAMUK, chair, in completed)	2022
James Russell, *Surface Water System Dynamics: A Case Study in the Lower Rio Grande Valley, Texas* (M.S. thesis student, TAMUK, chair)	2023
Luis Mier-Valderrama, *Estimating soil runoff and watershed flow in a low order stream system, central Texas* (M.S. thesis student, TAMUK, chair) (**May 2024 TAMUK Graduation, Distinguished Graduate Student Award**)	2024

COMMITTEE SERVICE

Kyle Brewster (RWSC), *Cost:benefit analysis of coyote removal as a management option in Texas Cattle Ranching* (M.S., TAMUK, completed, Dr. Scott Henke chair) 2017

Brandon Stoddard (PLSS), *Standing forage effects of brush piles and exclosure, and seedback effects of turbine construction on shallow calciustolls of the western Edwards* (M.S., TAMUK, completed, Dr. David Ruppert chair) 2017

Lee Creech (RAMT), *Profit potential and economic feasibility of TA Ranch acquiring additional land leases* (M.S., TAMUK, completed, Dr. Rick Machen chair) 2017

Hector Menendez (NRM), *Estimating Erosion, Water Quantity and Quality Changes in Response to South Dakota Grassland Conversion* (Ph.D., South Dakota State, completed, Dr. Melissa Wuellner chair) 2018

Hank Willemsma (RAMT), *Economic and Logistical Comparison of Drought Mitigation Strategies as they Affect the Turner Ranch Market Herd* (M.S., Completed, Dr. Rick Machen chair) 2018

Justin Staley (RAMT), *Implications to Holistically Transition Deseret Cattle & Citrus from Rotational to an Intensive Grazing System* (M.S., completed, Dr. Rick Machen chair) 2018

Benjamin Brown (AGSC), *Educators Perceptions of Objectives Met Within Junior Agricultural Mechanics Show Projects* (M.S., completed, Dr. Steven Chumbley chair) 2018

Candace Weeda (RAMT), *Financial Evaluation and Management Implications of Pasture Renovation at Roche-Thomson Ranch: A Comprehensive Management Plan* (M.S., completed, Dr. Rick Machen chair) 2018

Daniel Chase Carrol (AGSC) *STEM Career Interest of High School Agriculture Students* (M.S., completed, Dr. Steven Chumbley chair) 2018

Joe Glasscock (RAMT), *An appraisal of Cook Canyon Ranch livestock enterprises using key performance indicators* (M.S., completed, Dr. Rick Machen, chair) 2019

Chance Muelstein (RAMT), *A proposed Santa Gertrudis seedstock management and expansion plan for King Ranch® Inc.* (M.S., completed, Dr. Rick Machen, chair) 2019

John Olsen (RAMT), *Calving Season Analysis for Deseret Cattle and Timber* (M.S., completed, Dr. Rick Machen, chair) 2019

Tony Falk (RWSC), *Converting Bermudagrass to native warm-season grasses in the Blackland Prairie and Coastal Prairies Ecoregions of Texas* (Ph.D., TAMUK, completed, Dr. Bill Kuvlesky chair) 2020

Lisa Akinyemi (ENVS), *Comparing Processes Available in Transdisciplinary Mixed Methods Systems Research for Conservation Agriculture Implementation Improvement* (M.S., Tarleton State University, completed, Dr. Barbara Bellows, chair) 2020

Ashley Mondragon (ENVS), *Effect of blended freshwater on growth and development of Solanum lycopersicum* (M.S., TAMUK, Dr. Ambrose Anoruo, chair) 2021

Vanessa Almazan (ENVS), *Physiological development of citrus growth with non-conventional water sources* (M.S., TAMUK, Dr. Ambrose Anoruo, chair) 2021

Miranda Farias (ENVS), *Sustainability of water resources in agriculture: growth and development studies of Capsicum annum (pepper) using blended fresh water* (M.S., TAMUK, Dr. Ambrose Anoruo, chair) 2021

Ethan Young (KRIRM), *An assessment of Triangle Ranch livestock water infrastructure* (M.S., TAMUK, Dr. Rick Machen, chair) 2022

Eugenio Conklin (AGSC), Intercultural conflict styles in post-secondary agriculture science students (M.S. TAMUK, Dr. Steven Chumbley, chair) 2022

Stephanie Resendez (ENVS, M.S. TAMUK, Dr. Ambrose Anoruo, chair) 2022

Peter Isibor (ENVS, M.S. TAMUK, Dr. Ambrose Anoruo, chair) 2022

Ricardo Torres (Environmental Engineering), *Effects of Different Best Management Practices on Water Quality Indicators in the Arroyo Los Olmos Watershed, Texas* (M.S., TAMUK, Tushar Sinha, chair) 2023

Mati Mohammadi (Ag Economics), The Impact of Adopting New Information Technologies on Firms' Boundary Decisions (Ph.D., Purdue University, Dr. Allan Gray, chair) 2023

Travis Bell (AGSC), *Outdoor education research in Texas 4-H* (M.S., TAMUK, Dr. Steven Chumbley, chair) 2023

Katherine Biggs (AGSC), *Measuring the impact of service-learning activities on authentic leadership* (M.S., TAMUK, Dr. Steven Chumbley, chair) 2023

Jorge Ledezma (ENVS, M.S. TAMUK, Dr. Ambrose Anoruo, chair) 2023

Sathvik Gadde (ENVS, M.S.), *Morphological and anatomical development of citrus sinensis (orange) and solanum lycopersicum (tomato) grown with non-conventional water sources* (TAMUK, Dr. Ambrose Anoruo, chair) 2023

Rishitha Lebaka (ENVS, M.S.), *Effect of organic and inorganic nutrient sources on growth and development of Anaheim pepper* (TAMUK, Dr. Ambrose Anoruo, chair) 2023

Manasa Arepalli (ENVS), *Effect of nitrogen source on growth, development and water use efficiency of capsicum annum (jalapenio ealy)* (M.S., TAMUK, Dr. Ambrose Anoruo, chair) 2023

Kavya Garkapohula (ENVS), *Morphologogical growth and development predictors of transpiration in capsicum annum* (M.S., TAMUK, Dr. Ambrose Anoruo, chair) 2023

Sai Teja (ENVS) *Anatomical and morphological predictors of transpiration rate in epipremnum aureum.* (M.S., TAMUK, Dr. Ambrose Anoruo, chair) 2023

Tyler Woodland (RAMT), *Development of Stocking Rate Benchmarks and A Grazing Structure for True Ranches* (M.S., TAMUK, Dr. Rick Machen, chair) 2023

Madison Meagher (ENVS), Effects of organic biostimulant on golf green seashore paspalum (Paspalum vaginatum) (M.S., TAMUK, Dr. Ambrose Anoruo, chair) 2024

Sam Newell (RAMT), *Eliminating Nutrition as a Reproduction Limiting Factor for Z Bar Ranch Bison* (M.S., TAMUK, Dr. Rich Machen, chair) 2024

Amberly Zaragoza (PLSS), Potential improvement of soil properties and forage sorghum (Sorghum bicolor x s. bicolor var. Sudanese) by cattle paunch waste application in south Texas dryland forage production (M.S., TAMUK, Dr. Shad Nelson, chair) 2023-present

Herbert Magobwe (RWSC), *Influence of small-mammal herbivory on rangeland restoration success in western Texas* (M.S., TAMUK, Dr. Fidel Hernandez, chair) 2024-present

Emiliano Cahe (Ph.D., Science, Technology and Agricultural Innovation) *Modelización dinámica y planificación de la franja urbano rural del sur de Córdoba, Argentina* (National University of Rio Cuarto, Argentina, Dr. Jorge De Prada, chair) 2024-present

UNDERGRADUATE STUDENT ADVISING (CHAIR, WITH TITLE AND YEAR COMPLETED)

Sydnee Cissna (B.S., Marketing, Minor: Agribusiness), *Water Resource Management Issues: Characterization of the Nueces River Watershed* (Honors College Thesis, completed). 2017

Zachary Hamaker (B.S., Agribusiness), *Investigating the Agricultural Sustainability of the Rio Grande Valley of Texas* (Honors College Thesis, completed). 2019

Chris Flores-Lopez (B.S. Agribusiness), *Resource Conservation and Decision-Making for Sustainable Water Use* (NSF CREST Undergraduate Researcher) 2020

Henry Burns (B.S. Agribusiness), *Resource Conservation and Decision-Making for Sustainable Water Use* (NSF CREST Undergraduate Researcher) 2020-2021

James Russell (B.S. Agribusiness), *Hydrologic Data Acquisition and Organization for Water Management Decision-Support Modeling in South Texas* (NSF CREST Undergraduate Researcher) 2020-2021

Kendall Cloud (B.S. Agribusiness), *Mental models of stakeholders in south Texas (NSF CREST) and Estimating soil runoff and watershed flow in a low order stream system* 2021-2022

Luis Mier-Valderrama (B.S. Agribusiness), *Estimating soil runoff and watershed flow in a low order stream system* 2021-2022

Gabe Cavazos (B.S. Agribusiness), *Decision tree analysis for sustainable crop management in the Lower Rio Grande Valley* 2021-2022

Julianna Leal (B.S. Agribusiness), Multiple projects involving USDA REEU, NSF CREST, and class-based undergraduate research. Capstone project entitled: *If we know groundwater is a limited resource that must be managed, why are water tables in Texas continuing to decline?* (**December 2023 TAMUK Graduation, Distinguished Student Award**)	2023
Caleb Reed (B.S. Agribusiness), *Decision tree analysis for sustainable crop management in the Lower Rio Grande Valley*	2022-2023
Morgan Bishop (B.S. Animal Science), *Monitoring and assessment of ecological functions in response to rangeland improvements on a south Texas ranch*	2023-2024
Carolina Munoz (B.S. Agribusiness-Ranch Management), *Monitoring and assessment of ecological functions in response to rangeland improvements on a south Texas ranch*	2024
Leeya Flores (B.S. Political Science), *Water quality perspectives of water resource managers and stakeholders in southern coastal bend Texas*, McNairs Scholar	2024

SERVICE, LEADERSHIP & DEVELOPMENT, AND PROFESSIONAL RECOGNITIONS

PROFESSIONAL OR PARTICIPATORY MEMBERSHIPS	Years
System Dynamics Society	2012-present
Agriculture and Food Special Interest Group	2016-present
Society for Range Management	2012-present
Texas section	2014-present
South Dakota section	2012-present
Soil and Water Conservation Society	2014-present
South Dakota Grasslands Coalition	2012-2014
International Society for Ecological Economics	2013-2016
American Water Resources Association	2015, 2017
Animal Science Modelers Group	2009-2012
National Agri-Marketing Association	2008-2011
Agricultural Business Club (Sam Houston State Univ.)	2007-2009
Delta Tau Alpha honor society (Sam Houston State Univ. chapter)	2007-2009
Chi Alpha Christian Fellowship	2006-2012

PROFESSIONAL & LEADERSHIP SERVICE

Internal Service

2024-2025	TAMUK Department of Agriculture, Agribusiness and Environmental Science, Department Strategic Planning committee (chair)
2024	TAMUK Department of Agriculture, Agribusiness and Environmental Science, Tenure and Promotion committee (chair)
2023	TAMUK AGBU Search committee chair (1 hire for TAMUK campus and 1 hire for RELLIS campus)
2022-2023	TAMUK College of Agriculture and Natural Resources, College Tenure and Promotion committee
2021-2023	TAMUK Faculty Senate Committee on Committees (2021-2023) Executive Committee (2022-2023)
2021-2022	TAMUK College of Agriculture and Natural Resources, College Tenure and Promotion committee (chair)
2020-2021	TAMUK Maker Space Committee
2016-present	Scholarship Committee; College of Agriculture, Natural Resources, and Human Sciences (College level)
2020	TAMUK AGBU RELLIS Non-Tenure Track Instructor Search Committee, Chair (department level)
2019	Faculty Evaluation Committee
2019	TAMUK Soil Science Faculty Search Committee, Chair (department level)

2018-2020	TAMUK Faculty Senate Elections committee (2018-2019) Executive committee (2019-2020)
2017-2019	TAMUK Faculty Developmental Leave Committee (University level)
2020	TAMUK AGBU RELLIS Faculty Hiring Search Committee, chair (department level)
2018	TAMUK Soil Science Faculty Hiring Search Committee, chair (department level)
2017	TAMUK AGBU Faculty Hiring Search Committee (department level)
2016	TAMUK AGBU Faculty Hiring Search Committee, Chair (department level)
2015	Library representative, Department of Agriculture, Agribusiness & Environmental Sciences
2015-2016	Faculty advisor, Kappa Chi (student organization)

External Service

2013-present	Article reviewer, System Dynamics Society International Conference
2016-present	Society for Range Management, Texas section
2019-present	Three Minute Thesis Competition Committee and Moderator
2016-2018	Awards Committee, Texas Section SRM
2016	Society for Range Management, Conference Technical Session Rangeland Social Science II: Culture, Policy, and Ecosystems (session moderator), Corpus Christi, TX

Student Service

2014	Captain, Rangeland Cup Competition (SDSU), Society of Range Management
2009-2010	Student competition advisor, TAMUK National Agri-Marketing Association competition team
2008-2009	Agribusiness club (Sam Houston State Univ.) president
2008-2009	Captain, SHSU National Agri-Marketing Association competition team

PUBLIC SERVICE & VOLUNTEERING

2022-present	W.D. Farr Scholarship Review Committee, The National Cattlemen Foundation
2019	Panelist, Office of Research and Sponsored Programs USDA Grant Opportunities Panel Discussion
2019	Jr. Brahman Leadership Camp, speaker
2019	Texas 4-H Leadership Academy, speaker
2018	Judge, 11th Annual Javelina Research Symposium
2017	TAMUK Office of Student Access Graduate School Roundtable, July 14 2017
2017	Texas FFA Agriscience Fair Judge, July 11, 2017, Corpus Christi, TX
2017	Judge, 9th Annual Javelina Research Symposium
2016	Aided in AGSC/AGBU recruiting effort for students from TAMU Galveston (Aug. 17)
2016	Judge, 7th Annual Javelina Research Symposium
2015	Panelist, *Mentors Lounge*, SDSU WL 792 Teaching Strategies
2013	Volunteer, South Dakota Society of Range Management's *Range Camp*, Sturgis SD
2013	Volunteer, *Rangeland Days*, Cottonwood Research Station, Philip SD
2012	Demonstrator, USDA Higher Education Challenge Grant, Range Management Monitoring and Assessment (video series)
2012	Volunteer, Bureau of Land Management/West River Ag Center (livestock research).
2009-2011	Volunteer, Chi Alpha, TAMUK Fall and Spring festivals
2011-2012	Student leadership, Oklahoma State Chi Alpha
2010	Volunteer, Hunt Oil Company Internship program events (Winston Solar Car; Reading Program)
2009	Volunteer, FFA competition judge (various events; regional and state meets)
2009-2011	Student leadership, TAMUK Chi Alpha
2008-2009	Student leadership, SHSU Chi Alpha

CONTINUING EDUCATION & PROFESSIONAL DEVELOPMENT

2021	Panopto Video and Lightboard Video Capture Teaching Certification, TAMUK Distance Learning and Instructional Technology
2017	Summer READ Club in Distance Education, TAMUK Distance Learning and Instructional Technology
2016	Distance Education Certification, TAMUK Center for Teaching Effectiveness
2016	Attended the 4th Annual South Texas Student Success Conference, TAMUK
2013	Graduate Research Seminar. South Dakota State University, January, 23, 2013
2012	Introduction to GIS (summer short course), South Dakota School of Mines and Technology (Instructor: Dr. MaryBeth Price)
2012	Interpreting Indicators of Rangeland Health training. Hosted by USDA Bureau of Land Management. Instructors: Dr. Jeff Herrick, Dr. Pat Sharver, Dr. Fee Busby, Dr. David Pyke. July 17-20, 2012. Bell Fouche, SD.
2011-present	Social and Behavioral Responsible Conduct of Research Course 1. CITI (Collaborative Institutional Training Initiative. Completed 8-28-2011; updated 08/2013; 01/2016
2010-2014	Quarterly/Bi-annual research meeting with Mr. Corey Peck (Managing Director, Lexidyne LLC) covering system dynamics concepts, modeling considerations, and stakeholder/client engagement.
2009-2010	Monthly research meetings with Dr. Luis Tedeschi covering systems model development and evaluation procedures. College Station, TX.

HONORS AND AWARDS

2024	**Senior Faculty Research Award,** Texas A&M University-Kingsville College of Agriculture and Natural Resources
2021-2022	**Honorable Mention,** International Society of Ecological Modelling Best Early Career Research Award (ECRA)
2021	**Junior Faculty Research Award**, Texas A&M University-Kingsville College of Agriculture and Natural Resources
2019	Texas Section-Society for Range Management ***Popular Writing Award***
2017	Texas A&M University's Distance Education and Instructional Technology ***Innovator of the Yea***r Award in Teaching
2014	Society of Range Management's *Rangeland Cup* (1st Place High Team, South Dakota State University)
2014	The Nature Conservancy's *J.E. Weaver Graduate Student Scholar* ($1,000)
2013	*W.D. Farr Memorial Scholarship* recipient ($12,000) Sponsored by The National Cattlemen's Foundation
2013	*Barry Richmond Award* recipient ($1,000) Sponsored by iSeeSystems, Inc.
2011-2012	Sitlington Enriched Graduate Scholarship, Department of Agricultural Economics ($1,000) Oklahoma State University
2009-2010	Texas A&M-Kingsville Graduate Student of the Year (Agribusiness)
2008-2009	Sam Houston State University Agriculture Student of the Year (1 of 4 awarded)
2005-2009	The Normangee Livestock Board Student Scholarship ($2,000)