Dr. Xuejun Dong

Contact Information	Associate Professor of Crop Physiology Texas A&M AgriLife Research and Extension Center at Uvalde 1619 Garner Field Road Uvalde, TX 78801 USA	$Tel: +1-830-988-6136 \\ Fax: +1-830-278-1570 \\ E-mail: \\ xuejun.dong@ag.tamu.edu$		
Research Interests	My program is centered in the soil-plant-water relations for improved crop production under water limitation. My research emphasizes the identification of plant physiological traits and mechanisms of soil-plant interactions in relation to improved crop water use efficiency in cropping system through the development and application of sensors and computer models for crop phenotyping and management.			
Education	Institute of Botany, Chinese Academy of Sciences, Beijing, China			
	Ph.D., Botany (Plant Ecophysiology), 1997			
	 Dissertation: Ecophysiology of the Sandy Shrubs in the Mu Us Sandland: Structure and Function (in English with journal articles published in [J. Arid Environ.], [Trees]) Adviser: The late Professor Xinshi Zhang (Hsin-shih Chang) (1934 – 2020) Department: Lab of Quantitative Vegetation Ecology (now State Key Laboratory of Vegetation and Environmental Change) 			
	M.S., Botany (Plant Ecophysiology), 1991			
	 Thesis: The Qualitative and Quantitative Interpretations of Water Relations of the Plants in the Soil-Plant-Atmospheric Systems in the Mu Us Sandland of China (in Chinese) Adviser: The late Professor Xinshi Zhang Department: Lab of Quantitative Vegetation Ecology Lanzhou University, Lanzhou, Gansu Province, China 			
	B.S., Plant Physiology (with honor), 1987			
	 Thesis: The Change in the Superoxide Dismutase Activity and Lipid Peroxidation in Radish Cotyledons During Senescence as Induced by Exotic Hormones (in Chinese) Adviser: The late Professor Chenglie Zhang (1938 – 2002) Department of Biology 			
Professional Experience	Associate Professor of Crop Physiology2019 – presentTexas A&M AgriLife Research and Extension Center - Uvalde, TX USA, and Department of Soil and Crop Sciences, College Station, TX USAAssistant Professor of Crop Physiology2013 – 2019Texas A&M AgriLife Research and Extension Center - Uvalde, TX USA, and			
	Department of Soil and Crop Sciences, Colleg Range Scientist/ Adjunct Professor	e Station, TX USA $2010 - 2013$		

Central Grasslands Research Extension Center (CGREC), N	North Dakota
State University (NDSU), Streeter, ND USA	
Assistant Range Scientist/ Adjunct Professor	2006-2010
NDSU-CGREC, Streeter, ND USA	
Assistant Range Scientist	2002 - 2006
NDSU-CGREC, Streeter, ND USA	
Research Specialist	2000 - 2002
NDSU-CGREC, Streeter, ND USA	
Research Associate	1999-2000
Department of Botany, Duke University, Durham, NC USA	
Research Associate Professor	1997-1999
Institute of Botany, Chinese Academy of Sciences, Beijing, Chi	ina
Research Assistant Scientist	1991-1997
Institute of Botany, Chinese Academy of Sciences, Beijing, Chi	ina

BOOK CHAPTERS [1] M. Liebig, X. Dong, J. McLain and C. Dell. 2012. Greenhouse gas flux from
 (2) managed grasslands in the U.S. In: M. A. Liebig, A. J. Franzluebbers
 and R. F. Follett (eds): Managing Agricultural Greenhouse Gases:
 Coordinated Agricultural Research Through GRACEnet to Address
 Our Changing Climate. Elsevier. San Diego, CA. Pp 183–202.

 [2] X.-D. Chen, X.-J. Dong and Z.-X. Chen. 1999. Shrub diversity and its restoration ecology in Ordos Plateau Sandland. In: K.-P. Ma (ed.): Ecosystems Diversity in Key Areas of China, In Chinese, published by Zhejiang Science and Technology Press, Hangzhou, China. Pp 109–153.

Refereed Journal Articles (72)

- X. Dong, D. A. Mott, Q. Zhou, and B. M. McKnight 2025. Does sample size of leaf osmotic potential affect the evidence of its association with cotton yield? J. Arid Environ. 229, 105387. https://doi.org/10.1016/j.jaridenv.2025.105387
- G. F. Lima, T. F. Duarte, T. J. A. da Silva, E. M. Bonfim-Silva, X. Dong, L. A. M. Meneghetti, and A. S. C. Custódio. 2025. Determination of field capacity in Oxisol by the flux density method, Arya-Paris model and pressure chamber. Brazilian Journal of Agricultural and Environmental Engineering (Agriambi Journal) 29(3): e283074. DOI: http://dx.doi.org/10.1590/1807-1929/agriambi.v29n3e283074
- [3] J. Sunoj V. S., X. Dong, M. V. Joshi, R. W. Jessup, D. I. Leskovar, and D. D. Baltensperger. 2025. Foliar gas exchange, morphology, and cannabinoid contents of three hemp varieties in southwest Texas. Agrosystems, Geosciences & Environment, e70101. https://doi.org/10.1002/agg2.70101
- [4] X. Dong, D. A. Mott, Jhanvi Garg, Quan Zhou, John Sunoj V.S., and B. M. McKnight. 2024. Rapid measurement and statistical ranking of leaf drought tolerance capacity in cotton. In revision Preprint of an earlier version of the manuscript is available at bioRxiv.
- [5] T. F. Duarte, E. M. Bonfim-Silva, T. J. A. da Silva, P. F. da Silva, L. A. M. Meneghetti, X. Dong, M. de Oliveira Matosa. 2024. Construction and

evaluation of an alternative tension infiltrometer in Oxisol under wood ash management. **Brazilian Journal of Agricultural and Environmental Engineering (Agriambi Journal)** 28(12): e283076. DOI: http://dx.doi.org/10.1590/1807-1929/agriambi.v28n12e283076

- [6] K. Qin, X. Dong, and D. I. Leskovar. 2023. Improving tomato nitrogen use efficiency with lignite-derived humic substances. Sci. Hort., 321: 112243. https://doi.org/10.1016/j.scienta.2023.112243
- [7] J. Sunoj Valiaparambil Sebastian, X. Dong, C. Trostle, H. Pham, M. V. Joshi, R. W. Jessup, M. D. Burow, and T. L. Provin. 2023. Hemp agronomy: current advances, questions, challenges, and opportunities. Agronomy, 13, 475. https://doi.org/10.3390/agronomy13020475
- [8] X. Dong, G. Feng, S. Sieckenius and D. I. Leskovar. 2023. Effect of mustard cover crops on corn growth, yield and soil water storage in southwest Texas. Arid Land Res. Manage. 37: 265–283 https://doi.org/10.1080/15324982.2022.2130114
- [9] X. Dong, S. Sieckenius, B. Peng, X. Liu, J. Butnor. 2021. Using ground penetrating radar to detect seasonal root growth patterns in corn and cotton under field conditions. In preparation for Plant and Soil
- [10] P. O. Hinson, C. B. Adams, X. Dong, Q. Xue, S. Thapa, G. Feng, E. Kimura, B. Pinchak, A. Somenahally and A. M. H. Ibrahim. 2022. Path analysis of phenotypic factors associated with grain protein in dryland winter wheat. J. Crop Improve. 36: 892–918. https://doi.org/10.1080/15427528.2022.2042882
- [11] X. Dong, B. Peng, S. Sieckenius, R. Raman, M. M. Conley, D. I. Leskovar. 2021. Leaf water potential of field crops estimated using NDVI in groundbased remote sensing–opportunities to increase prediction precision. PeerJ 9:e12005 http://doi.org/10.7717/peerj.12005.
- [12] X. Dong, G. Feng, and I. Zemach. 2021. Using normalized difference vegetation index to estimate sesame drydown and seed yield. J. Crop Improve. 35: 508–521. doi: 10.1080/15427528.2020.1846101 Supplementary material is available from http://doi.org/10.5281/zenodo.4137182.
- [13] X. Liu, X. Dong, X. Ma, E. B. Blancaflor and J. R. Butnor. 2019. Ground penetrating radar with a high frequency antenna improves root biomass detection in sandy soil-grown winter wheat. Ground Penetrating Radar, 2(2): 31–48. doi.org/10.26376/GPR2019006
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- [19] X. Liu, X. Dong, Q. Xue, D.I. Leskovar, J. Jifon, J.R. Butnor and T. Marek. 2018. Ground penetrating radar (GPR) detects fine roots of agricultural crops in the field. Plant Soil 423: 517–531. https://doi.org/10.1007/s11104-017-3531-3
- [20] X. Liu, S. Feakins, X. Dong, Q. Xue, T. Marek, D.I. Leskovar, C.B. Neely and A.M.H. Ibrahim. 2017. Experimental study of leaf wax *n*-alkane response in winter wheat cultivars to drought conditions. Org. Geochem. 113: 210–223. http://dx.doi.org/10.1016/j.orggeochem.2017.07.020
- [21] X. Liu, X. Dong and D. I. Leskovar. 2016. Ground penetrating radar for underground sensing in agriculture: A review. Int. Agrophys. Vol 30(4): 533-543. doi: 10.1515/intag-2016-0010
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CONFERENCE [1] X. Dong, B. Patton and P. Nyren. 2013. Responses of plant root and soil microbial respiration to seasonal rain events in a mixed-grass prairie under different grazing intensities. Invited paper presented to International Symposium on Adaptation of Terrestrial Ecosystems to Climate Change and Future Earth, Pp 148–158. Edited by G.-S. Zhou, Hubei Hotel-Beijing, China. Jun. 29 - Jul. 1, 2013. (Invited) https://zenodo.org/record/6822171#.Y1AeQ_zMKUl

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- [3] X. Dong and D. A. Mott. 2021. Leaf osmotic potential and morphological traits of 43 cotton varieties growing in a rainfall gradient from southwest to central Texas. In Boyd, S., Huffman, M., Krogman, L., and Sarkissian, A., editors, Proceedings of the 2021 Beltwide Cotton Conferences, pages 193–197, Virtual. National Cotton Council of America.
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Other Publications and Reports (24)

- X. Dong, D. A. Mott and Q. Zhou. 2025. Final Technical Report on TSSC Project 20-557TX (NEW). Final report submitted to Cotton Inc. (16 pages).
- [2] X. Dong, D. A. Mott and Q. Zhou. 2024. Final Technical Report on TSSC Project 20-557TX (NEW). Final report submitted to Cotton Inc. (18 pages).
- [3] X. Dong, D. A. Mott and Q. Zhou. 2023. Technical report on cotton soil water monitoring leaf drought tolerance measurement in southwest and central Texas. Final report submitted to Cotton Inc. (36 pages).
- [4] X. Dong and D. A. Mott. 2022. Technical report on cotton soil water monitoring leaf drought tolerance measurement in southwest and central Texas. Final report submitted to Cotton Inc. (29 pages).
- [5] X. Dong and D. A. Mott. 2021. Technical report on cotton soil water monitoring leaf drought tolerance measurement in southwest and central Texas. Progress report submitted to Cotton Inc. (20 pages).
- [6] X. Dong. 2018. Study notes on dynamic systems (Version 1.0) 24 pages. Available at https://zenodo.org/record/1419315#.W8pI7flRdhE

- [7] X. Dong, B. Speer, X. Liu and D. I. Leskovar. 2016. Sesame growth and yield responses to irrigation regimes in southwest Texas. Progress report submitted to Sesaco Co. (19 pages).
- [8] X. Dong, J. Patton and L. Gu. 2012. Photosynthetic capacity of 26 dominant plant species of the mixed-grass prairie. NDSU Central Grasslands Research Extension Center 2012 Annual Report. Pages 61-69.
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- [15] X. Dong. 2008. Carbon sequestration on grazing rangelands: the role of plants. NDSU Central Grasslands Research Extension Center 2008 Annual Report. Page 8.
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- [21] X. Dong, P. Nyren, B. Patton, A. Nyren. 2002. Modeling to aid production agriculture: Introduction to a grassland ecosystem study in the Missouri Coteau of North Dakota. NDSU Central Grasslands Research Extension Center 2002 Annual Report. Pages 15–20.
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- [23] X. Dong, P. Nyren, B. Patton, B. Kreft, A. Nyren, 2001, Uses of ecosystem modeling for range management. NDSU Central Grasslands Research Extension Center 2001 Annual Report. Pages 8–9.
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- POSTERS AND [1] Choi, S., Lee, C., Harvey, J. T., Nagila, Asmita, Sharma, A., Dong, X., ABSTRACTS (40)
 [1] Choi, S., Lee, C., Harvey, J. T., Nagila, Asmita, Sharma, A., Dong, X., Leskovar, D. I. Leskovar. 2025. Multi-Season Comparison of Lettuce Growth and Water Use in Three Different Hydroponic Systems Types, Deep-Water Culture, Nutrient Film Technique, and Vertical System. ASHS 2025 Annual Conference, 28 July - 1 August, New Orleans, Louisiana, USA.
 - [2] Dong, X., Mott, D. A. McKnight, B. M. 2025. Selected leaf drought tolerance traits in relation to cotton lint yield and fiber quality indices: A resampling test on sample size. The 2025 Beltwide Cotton Conference, Jan. 14-16, 2025. New Orleans, LA
 - [3] Ahmad, U., Dong, X., Vitale, G., Malla, S. 2024. Growth and Yield Responses of Onions to Irrigation Management at the Bulbing Stage in Southwest Texas. The 2024 ASA-CSSA-SSSA Annual Meeting, Nov. 10-13, 2024. San Antonio, TX
 - [4] Dong, X., Harvey, J. T., Leskovar, D. I. 2024. Leaf gas exchange and canopy temperature characteristics of four guayule varieties growing under

field conditions in southwest Texas. The 2024 ASA-CSSA-SSSA Annual Meeting, Nov. 10-13, 2024. San Antonio, TX

- [5] Dong, X., Duarte, T. F., and Pinheiro, E. A. R. 2023. Modeling Soil Water Flow and Root Water Uptake of Cotton to Estimate Seasonal Crop Water Use. The 2023 ASA-CSSA-SSSA Annual Meeting, Oct. 29, to Nov. 1, 2023. St. Louis, MO
- [6] Xue, Q., Dong, X., et al. Drought tolerance traits in winter wheat. The spring 2023 Texas Small Grains Workers Meeting and the McFadden Symposium. Grapevine, TX. April 24-26, 2023.
- [7] J. Sunoj V.S, Dong, X., Trostle, C., Pham, H., Joshi, M. V., Jessup, R., Burow, M. D., and Provin, T. L. Hemp agronomy - questions, current advances, and opportunities. ASA-CSSA-SSSA Annual Meeting, Baltimore, MD. November 6-9, 2022.
- [8] Hinson, P.O., Adams, C., Xue, Q., Thapa, S., Dong, X., Feng, G., Neely, C.B., and Guillen-Portal, F. Identifying in-Season Phenotypic Predictors of Elevated Grain Protein Concentration in Wheat Plains. The 2021 Annual Meeting of the Southern ASA. January 30-February 1, 2021 (Virtual)
- [9] Hinson, P.O., Adams, C., Xue, Q., Thapa, S., Dong, X., Feng, G., Neely, C.B., and Guillen-Portal, F. Identifying wheat traits associated with consistently high grain protein concentration in the Southern Great Plains. ASA-CSSA-SSSA Virtual Annual Meeting, Nov. 8-11, 2020, Phoenix, AZ.
- [10] Dong, X., Sieckenius, S., Peng, B., Djidonou, D., Leskovar, D.I. 2019. Using Ground Penetrating Radar to Detect Root Biomass of Grafted Tomato. ASA-CSSA-SSSA Annual Meeting, San Antonio, TX, Nov. 10-13, 2019.
- [11] Dong, X., Feng, G., Sieckenius, S., Leskovar, D. 2019. Water Use By Mustard Cover Crops: Does It Affect the Growth of Corn As a Following Crop? ASA-CSSA-SSSA Annual Meeting, San Antonio, TX, Nov. 10-13, 2019.
- [12] Dong, X. Sieckenius, S., Peng, B., Morgan, G. and Joshi, V. 2019. Cotton yield and fiber quality in relation to leaf and canopy traits under different irrigation regimes in southwest Texas. The Annual Beltwide National Cotton Conference, January 8-10, 2019. New Orleans, LA.
- [13] Dong, X. and Morgan, G. 2018. Leaf Osmotic Potentials of Selected Cotton Varieties Under Different Irrigation Regimes in Southwest Texas. The Beltwide National Cotton Conference, January 3-5, 2018. San Antonio, TX.
- [14] R. Raman, X. Dong, S. Murray, W. Rooney, S. Malla. 2017. Water-Use Efficiency of Selected Corn and Sorghum Genotypes in Southwest Texas, The 29th Annual Conference of Texas Plant Protection Association. Dec. 5-6, 2017. Bryan, TX.

- [15] X. Liu, X. Dong, Q. Xue, D. I. Leskovar, J. Jifon, J. R. Butnor and T. Marek. 2017. Using Ground Penetrating Radar to Detect Fine Roots of Agricultural Crops in the Field, ASA-CSSA-SSSA Annual Meeting, Tampa, FL, Oct. 21-25, 2017.
- [16] R. Raman, X. Dong, S. Murray, W. Rooney, S. Malla. 2017. Characterization of drought tolerance traits in corn and sorghum: a phenotypical approach, ASA-CSSA-SSSA Annual Meeting, Tampa, FL, Oct. 21-25, 2017.
- [17] D. Leskovar, Y. Othman and X. Dong. 2017. Strip Tillage Improves Soil Biological Activity, Fruit Yield and Sugar Content of Triploid Watermelon. Watermelon Research and Development Group (WRDG) Meeting. Feb. 3-4, 2017. Mobile, Alabama
- [18] X. Liu, X. Dong, Q. Xue, A. Ibrahim, C.B. Neely, D. Leskovar and T. Marek. 2016. Path Analysis of Root/Shoot Traits and Grain Yield in Winter Wheat in Texas Wintergarden and High Plains, ASA-CSSA-SSSA Annual Meeting, Phoenix, AZ, Nov. 6-9, 2016.
- [19] S.C. Murray, G. Richardson, L. Malambo, Y. Shi, B. Hartley, J. Demieville, J. Pekar, J. A. Thomasson, S. Popescu, D. Cope, J. Valasek, J. Olsenholler, M.P. Bishop, X. Dong, W.L. Rooney, G. Oliver, C. Ratcliff, D. Baltensperger, M. Maeda, J. Jung, M. Starek, M.J. Brewer, J.A. Landivar. 2016. Temporal estimates of maize plant growth in a breeding program using ground based and unmanned aerial vehicle systems, ASA-CSSA-SSSA Annual Meeting, Phoenix, AZ, Nov. 6-9, 2016.
- [20] X. Liu, X. Dong, D. Hathcoat, C. Neely, A. Ibrahim, D. Leskovar. 2016. Testing winter wheat varieties under different irrigation regimes considering heat and disease stress in southwest Texas. Small Grains Workers Meeting, College Station, TX, August 3-4, 2016.
- [21] Y. Zhang, X. Dong, B. Speer, D. Leskovar. Leaf gas exchange and water use of two cotton varieties under different irrigation regimes. The 27th Annual Conference of Texas Plant Protection Association. Dec. 8-9, 2015. Bryan, TX.
- [22] Y. Zhang, M. Hou, H. Xue, L. Liu, H. Sun, X. Dong, C. Li. Using Photochemical Reflectance Index and Solar-Induced Fluorescence to Assess Cotton Photosynthesis Under Water-Deficit Stress. ASA-CSSA-SSSA Annual Meeting, Minneapolis, MN, Nov. 15-18, 2015
- [23] X. Dong, P. Nyren, B. Patton, M. A. Liebig, A. Chatterjee, L. J. Cihacek. Plant Vs. Environmental Influences on Soil Respiration in a Mixed-Grass Prairie Under Cattle Grazing: A Path Analysis. ASA-CSSA-SSSA Annual Meeting, Minneapolis, MN, Nov. 15-18, 2015
- [24] X. Dong, B. Speer, Y. Zhang, D. Hathcoat, A.M.H. Ibrahim, C.B. Neely, Q. Xue, T. Marek, J.C. Rudd, D. Leskovar. Cultivar-Irrigation Interactions in Shoot/Root Traits of 15 Wheat Varieties in Wintergarden Region. ASA-CSSA-SSSA Annual Meeting, Minneapolis, MN, Nov. 15-18, 2015

- [25] X. Dong, W. Xu, B. Speer, Y. Zhang, J. Christman, D. Leskovar. Can Irrigation Timing Ameliorate High Night Temperature Stress on Corn? ASA-CSSA-SSSA Annual Meeting, Minneapolis, MN, Nov. 15-18, 2015
- [26] C.L.S. Morgan, J.M. Bell, P.B. DeLaune, X. Dong, K.L. Lewis, J.L. Foster. Agronomic Management Strategies in Texas: Securing Soil and Improving the Efficiency of Water Use. ASA-CSSA-SSSA Annual Meeting, Minneapolis, MN, Nov. 15-18, 2015
- [27] D. Leskovar, Y. Othman, X. Dong, K. Crosby, Q. Xue, T. Marek. Water Relations, Gas Exchange, and Yield of Pepper Cultivars Under Water Deficit Stress. 2015 American Society of Horticultural Science (ASHS) Annual Conference, New Orleans, LA, Aug. 4-7, 2015
- [28] Dong, X. 2014. Wavelets for Big Data in Plant/Soil Research. The 26th Texas Plant Protection Conference, Brazos Center, Bryan TX, December 10 &11, 2014. Available at Zenodo.
- [29] X. Dong, P. Nyren, B. Patton, G. Wang, X. Pan, S. Wang, A. Nyren, R. Limb, D. Kirby and L. Cihacek. 2011. Ecosystem CO₂ Exchange in a Mixed-Grass Prairie. Unsubmitted poster
- [30] X. Dong, B. Patton, A. Nyren, P. Nyren and L. Prunty. 2011. Water uptake by rangeland plants: a modeling analysis. A poster based on Plant and Soil, 335 (1-2): 181–198.
- [31] X. Dong, J. Patton and P. Nyren. 2010. Drought strategies of invasive Kentucky bluegrass vs. native western wheatgrass. Forage Focus, The May 2010 Issue, Page 22. Midwest Forage Association, St. Paul, MN, USA.
- [32] X. Dong, B. Patton and P. Nyren. 2009. Managing Kentucky Bluegrass Invasion in Native Prairies. Forage Focus, The August 2009 Issue, Page 21. Midwest Forage Association, St. Paul, MN, USA.
- [33] X. Dong, P. Nyren, B. Patton, B. Kreft, A. Nyren. 2008. Long-term cattle grazing affected specific leaf area and its components in two range plant species. Proceedings of the 2008 joint Meeting of the XXI International Grassland Congress and the VIII International Rangeland Congress. Volume 1, P178. Hohhot, China, June 29 to July 5th, 2008.
- [34] X. Dong, P. Nyren, B. Patton, G. Wang, B. Kreft, A. Nyren, R. Limb, D. Kirby and L. Cihacek. 2008. Photosynthesis and soil respiration from a mixed-grass prairie: Effects of cattle grazing and drought. Proceedings of the 2008 joint Meeting of the XXI International Grassland Congress and the VIII International Rangeland Congress. Volume 1, P177. Hohhot, China, June 29 to July 5th, 2008.
- [35] X. Dong, J.-Z. Wang, G.-J. Wang, D.-J. Wang, J.-H. Wang, X.-Y. Zhao, B. D. Patton, S.-P. Wang and P. E. Nyren. 2008. Plant root biomass and respiration on rangelands of south-central North Dakota: Impact from 18

years of cattle grazing. The 2008 Joint Annual meetings of The American Forage and Grassland Council and The Society of Range Management to be held in Louisville, Kentucky. January 26-31, 2008.

- [36] X. Dong, P. Nyren, B. Patton, B. Kreft, A. Nyren. 2007. Specific leaf area, leaf thickness and density of two range plant species influenced by long-term cattle grazing. The 2007 Joint Congress of Botanical Society of America and American Society of Plant Biologists. With Section of Environmental Physiology (ASPB), Poster number 90. Chicago, Illinois. July 7-11, 2007.
- [37] X. Dong, P. Nyren, B. Patton, A. Nyren, J. Richardson and T. Maresca. 2007. Wavelet analysis: a toolbox for agricultural sciences. The 2007 Joint Congress of Botanical Society of America and American Society of Plant Biologists. With Section of Ecophysiology (BSA), Poster Number 1906. Chicago, Illinois. July 7-11, 2007.
- [38] X. Dong. 2006. Soil water budget and optimal grazing management in a mixed-grass prairie: Considering drought. Unpublished Poster.
- [39] X. Dong, B. Patton, P. Nyren, B. Kreft and A. Nyren. 2005. Effects of long-term cattle grazing on leaf water relations of two cool-season grasses in the Missouri Coteau of North Dakota. Society of Range Management 58th Annual Meeting, Fort Worth, TX. Feb. 05-11, 2005.
- [40] X. Dong, P. Nyren, B. Patton, A. Nyren, Ed Deckard. 2004. Plant water relations and gas exchange in a grassland with cattle grazing in the Missouri Coteau of North Dakota.Society for Range Management 57th Annual Meeting, Salt Lake City, Utah, January 25-30, 2004.
- X. Dong. 2025. Plant water potentials: their components and rapid and remote measurement to detect crop water stress in field crops. A seminar delivered at the department of Environmental Sciences at the University of Puerto Rico Rio Piedras. February 20, 2025. (Invited - Online)

TALKS (62)

- [2] X. Dong. 2024. Crop Physiology and Agroecology at Texas A&M Uvalde. The Agricultural Engineering Graduate Program, Federal University of Rondonópolis, Mato Grosso, Brazil. December 11, 2024. (Invited)
- [3] X. Dong, D.A. Mott, J. Garg, Q. Zhou, J. Sunoj V.S., and B.M. McKnight. 2024. Rapid measurement and statistical ranking of leaf drought tolerance capacity in cotton. Abstract #73. ISPAMed 2024 International Conference. Palermo, Italy. July 11-12, 2024. (Invited)
- [4] Dong, X. Plants in relation to water. Invited presentation to the Uvalde County 4-H STEM Project Meeting. Uvalde, TX. April 26, 2024.
- [5] Dong, X., Mott, D., Zhou, Q., and McKnight, B. 2023. Drought-tolerance screening, soil water monitoring and Bayesian statistical learning to assist cotton production in southwest Texas. A presentation given to the Texas State Support Committee. Texas A&M AgriLife Research and Extension Center at Lubbock. Nov. 28-29, 2023.

- [6] Dong, X. Water in Relation to Soil and Plants in Agriculture. Water Resources Science and Technology Fall Seminar Series. Texas A&M University - San Antonio, November 8, 2023. Videos 15. (Invited)
- [7] Dong, X., Mott, D., McKnight, B., and Zhou, Q. 2023. Drought Resistance, Water Use and Water Use Efficiency in Cotton: A Discussion Using Data from Southern Texas. The 2023 ASA-CSSA-SSSA Annual Meeting, Oct. 29, to Nov. 1, 2023. St. Louis, MO
- [8] Dong, X., Mott, D., McKnight, B., and Zhou, Q. 2023. Using leaf osmotic potential to evaluate drought tolerance of cotton in southwest Texas. The 2023 Annual Meeting of the Southern Branch of the American Society of Agronomy, Feb. 4-6, 2023. Omni Oklahoma City Hotel, Oklahoma City, OK
- [9] Sunoj V. S., J., Dong, X., Joshi, M. V., and Jessup, R. W. Foliar gas exchange, morphology, and cannabinoid profiling of selected genotypes of hemp (Cannabis sativa L. ssp. sativa) in southwest Texas. ASA-CSSA-SSSA Annual Meeting, Baltimore, MD. November 6-9, 2022.
- [10] Baltensperger, D. D., Redmon, L. A., Jessup, R. W., Thomson, M., Provin, T. L., Hague, S., Bell, J. M., DeLaune, P. B., Noland, R. L., Dong, X., Burow, M. D., Da Silva, J., McGinty, J., Molina-Risco, M., Faion-Molina, M., Bagavathiannan, M., McVane, J. M., and Nolte, S. Hemp Production Research and Extension. ASA-CSSA-SSSA Annual Meeting, Salt Late City, UT. November 7-10, 2021.
- [11] Dong, X., Mott, D. and B. M. McKnight. 2022. Leaf osmotic potential and morphological traits of 40+ cotton varieties growing in a rainfall gradient from Southwest to Central Texas. The Annual Belt-Wide Cotton Conference. Jan. 4-6, 2022. Marriott Rivercenter, San Antonio, TX
- [12] Dong, X. 2021. Drought-tolerance screening and soil water monitoring to assist cotton production in southwest Texas. A presentation given to the Texas State Support Committee. Dec. 1-2, 2021. Lubbock, TX
- [13] Dong, X. 2021. Drought tolerance of selected winter wheat varieties: An assessment using leaf osmotic potentials. Small Grain Workers Meeting. Aug. 4-5, 2021. Texas A&M AgriLife Research and Extension Center at Amarillo, TX.
- [14] Dong, X., Feng, G., Zemach, I. 2021. Phenotyping of sesame drydown using NDVI – results from southwest Texas. Online International Sesame Symposium, Feb. 23-24, 2021. Hosted by Dr. Kimberly Cochran, Texas A&M AgriLife Extension & Plant Pathologist, Uvalde, Texas
- [15] Dong, X. 2021. Can NDVI predict leaf water potential under field conditions? The 2021 Annual Meeting of the Southern Branch of the American Society of Agronomy, Jan. 30- Feb. 1, 2021.

- [16] Dong, X. and Mott, D. 2021. Leaf osmotic potential and morphological traits of 43 cotton varieties growing in a rainfall gradient from Southwest to Central Texas. The Annual Belt-Wide Cotton Conference (Virtual Meeting, Jan. 5-7, 2021).
- [17] Dong, X., Feng, G., Sieckenius S., and Leskovar, D. I. Water use, growth and yield of corn affected by previous mustard cover crops. ASA-CSSA-SSSA Virtual Annual Meeting, Nov. 8-11, 2020, Phoenix, AZ.
- [18] Dong, X. Root Water Uptake: Integrating Measurements and Modeling Approaches. Graduate Lecture as part of "Root Biology Part II. Field Applications and Breeding", HFSB 101, Texas A&M University, College Station, TX. March 19, 2020. (Invited)
- [19] Feng, G., Dong, X., Xue, Q., Adams, C., and Neely, C. Using the Osmometer Method to Quantify Drought Tolerance of Winter Wheat Under Field Conditions. ASA-CSSA-SSSA Annual Meeting, San Antonio, TX. November 10-13, 2019.
- [20] Dong, X. Osmotic potential of bulk leaves Can it be measured rapidly? Educational Seminars Series, Texas A&M AgriLife Research and Extension Center, Uvalde, TX. 10:30 a.m., October 7, 2019.
- [21] Feng, G., Dong, X., Hinson, P., Xue, Q., Adams, C., and Neely, C. Can leaf osmotic potential indicate drought tolerance in winter wheat? Small Grains Workers Meeting, College Station, TX., August 28-29, 2019.
- [22] Dong, X., Sieckenius, S., Peng, B., Xue, Q., Ibrahim, A.M.H. Predicting leaf rust infection rate in winter wheat using normalized difference vegetation index. ASA-Southern Regional Conference, Birmingham, AL., February 3-5, 2019.
- [23] Peng, B., Dong, X. Effects of Environment × Variety on Root Traits of Winter Wheat. The 2018 Small Grains Workers Meeting, Scotts Miracle Gro Turfgrass Research Facility, 2891 F&B Road, College Station, TX, August 1-2, 2018.
- [24] Dong, X. Soil-plant water relations and crop production in southwest Texas. Soils Critique - The 2018 annual meeting soil researchers, Texas A&M AgriLife Research and Extension Center at Uvalde, Uvalde, TX. July 25-26, 2018.
- [25] Root Water Uptake: Integrating Measurements and Modeling Approaches. Graduate Lecture as part of "Root Biology Part II. Field Applications and Breeding", HFSB 101, Texas A&M University, College Station, TX. March 29, 2018. (Invited)
- [26] R. Raman, X. Dong, S. Murray, W. Rooney, S. Malla. 2018. Identification of yield potential of different corn and sorghum genotypes in southwest Texas. Southern Branch of American Society of Agronomy Annual Meeting. February 4-6, 2018, Jacksonville, FL.

- [27] Dong, X., Sieckenius, S., Djidonou, D., Leskovar, D.I. Soil Water Infiltration and Retention Under Saline and Sodic Conditions. The 2017 Annual Meeting of ASA-CSSA-SSSA, Tampa, FL. October 21-25, 2017.
- [28] Dong, X. Soil-plant water relations and agricultural crop production in arid regions, a lecture presented at the Cochran Fellowship Program (Turkmenistan and Uzbekistan), Uvalde, TX. June 21-22, 2017.
- [29] Dong, X. Root Water Uptake: Integrating Measurements and Modeling Approaches. Graduate Lecture as part of "Root Biology Part II. Field Applications and Breeding", WCBA 290, Texas A&M University, College Station, TX. March 22, 2016. (Invited)
- [30] Ecophysiology of Cropping Systems: An Experience in Southwest Texas, Heep Center, Texas A&M University, College Station, TX. October 21, 2015.
- [31] Dong, X. Root distribution and its representation for quantifying plant water uptake: An applied perspective. The 2015 Annual Meeting of ASHS New Orleans, Louisiana. August 4-7, 2015. (Invited)
- [32] Dong, X., Jones, A., Speer, B., Cothren, J.T., and D. Leskovar. 2015. Leaf stomatal conductance, transpiration and leaf area growth patterns of four cotton varieties under different irrigation regimes in southern Texas. The Beltwide National Cotton Conference, January 5-7, 2015. San Antonio, TX.
- [33] Dong, X., Forbes, D., Speer, B., Shallock, J., Rowland and D., Morgan. Effects of tillage and reduced irrigation on cotton yield in southern Texas. The 2014 Annual Meeting of ASA-CSSA-SSSA, Long Beach, CA. November 2-5, 2014.
- [34] Dong, X., Leskovar, D., Pierson, B., Pierson L.S., Sharma, S.P., A. Gibby and G. Pape. Ag1000 soil amendment increased root growth and intrinsic leaf water use efficiency in corn. The 2014 Annual Meeting of ASA-CSSA-SSSA, Long Beach, CA. November 2-5, 2014.
- [35] Yield responses of 15 winter wheat varieties to irrigation in Uvalde. A talk given at the 2014 Small Grains Workers Meeting, College Station, TX, August 12, 2014.
- [36] Role of Breeding to Enhance Plant Roots/Rhizosphere Communities. A talk given to the Grand Networks for Grand Challenges Min-Symposia, Organized by Texas A&M University, College of Agriculture and Life Sciences, College Station, TX. May 15, 2014. (Invited)
- [37] Physiological Traits and Wheat Performance in the Wintergarden Region. A talk given at the Combined Wheat and Vegetable Field Day, Texas A&M AgriLife Research & Extension Center, Uvalde, TX, April 23, 2014.
- [38] Can leaf-level photosynthesis help explain the success of cool-season invasive grasses? A talk given at the Cool-Season Grasses of the Northern Great

Plains Workshop, Holiday Inn, Fargo, ND, March 18-19, 2014 (presented by Bob Patton).

- [39] From soil water to soil respiration: An experience in the mixed-grass prairie. A talk given at Texas A&M AgriLife Research & Extension Center, Amarillo, TX, December 18, 2013.
- [40] X. Dong, B. Patton and P. Nyren. 2013. Responses of plant root and soil microbial respiration to seasonal rain events in a mixed-grass prairie under different grazing intensities. International Symposium on Adaptation of Terrestrial Ecosystems to Climate Change and Future Earth, Hubei Hotel-Beijing, China. Jun. 29, 2013. (Invited)
- [41] Photosynthetic capacity of 26 range plant species and its ecological implication. A talk given at the Forage Production Seminar & Research Review, NDSU-Central Grasslands Research Extension Center, Streeter, North Dakota. Mar. 19, 2013.
- [42] Effect of grazing on grassland soil respiration and photosynthesis. A talk to be given to the public on the 31th Annual field tour of NDSU-Central Grasslands Research Extension Center, Streeter, North Dakota. Jun. 27, 2012.
- [43] Soil respiration and its efficiency for rangeland forage production. Oral presentation planned for the NCCC31 2012 Annual Meeting, Bloomington, MN. Jun. 19-21, 2012.
- [44] Soil respiration partitioning in a Missouri Coteau rangeland. A talk given at the Grass & Beef Research Review of NDSU-Central Grasslands Research Extension Center, Streeter, North Dakota. Jan. 25 2012.
- [45] Alfalfa-tall fescue mixtures at CGREC- a part of a multi-regional project in north-central USA. A talk given to the public on the 30th Annual field tour of NDSU-Central Grasslands Research Extension Center, Streeter, North Dakota. Jun. 29, 2011.
- [46] Water cycle, transpiration and root water uptake in plants. A talk given to the 6th Grade class at Medina Public School, ND, USA. Apr. 13, 2011.
- [47] Effect of drought on biomass partitions between two introduced grasses and two native grasses in south-central North Dakota. Oral presentation at NCCC31 2011 Annual Meeting, West Lafayette, IN. Mar. 30-31, 2011.
- [48] Effect of grazing intensity on soil health and how it relates to beef production and carbon sequestration (with Bob Patton and Guojie Wang). A talk given to the public on the 29th Annual field tour of NDSU-Central Grasslands Research Extension Center, Streeter, North Dakota. Jun 23, 2010.
- [49] Soil water dynamics and root water uptake compensation on a mixed-grass prairie: A simulation analysis with implications to forage research and management. Oral presentation at NCCC31 2010 Annual Meeting, Blacksburg, VA. Mar. 31-Apr. 1, 2010.

- [50] Nutrient cycling in a Kentucky bluegrass dominated rangeland: Root water uptake, rhizome growth and root decomposition. An invited talk given to the "Kentucky Bluegrass Ecology Workshop: Identifying what we think we know, what we don't know, and future direction", hosted by the "Range Forum" and the N. D. Chapter of Society for Range Management. Mar.16, 2010. Mandan, ND.
- [51] Decomposition of below-ground plant litter: the effects of season and grazing intensity. Oral presentation at NCCC31 2009 Annual Meeting, Grand Rapids, MI. Jun. 24, 2009.
- [52] Wavelet transform in Biological Sciences: Principle, Examples and Outlook. Lecture (invited) given to Department of Economics and Management, Northwestern Nationality University, Lanzhou, China (28 June, 2008), Department of Forestry, Inner Mongolia Agricultural University, Huhhot, Inner Mongolia, China (4 July, 2008) and College of Resources and Environment, The Graduate University of Chinese Academy of Sciences, Beijing, China (10 July, 2008).
- [53] Effects of grazing on rangeland root biomass: a resampling-aided analysis. Oral presentation at NCCC31 2008 Annual Meeting, Ardmore, OK. Mar. 12-14, 2008.
- [54] Plant roots and soil carbon sequestration on rangelands of South-central North Dakota. A talk given at the Grass & Beef Research Review of NDSU-Central Grasslands Research Extension Center, Streeter, North Dakota. Jan. 2008.
- [55] Statistical resampling of data to increase the sensitivity of statistical tests. Second part of a special talk given to the "Range Forum", hosted by the N. D. Chapter of Society for Range Management. Nov.19, 2007. Mandan, ND.
- [56] The effects of grazing on root biomass and respiration of perennial plants. First part of a special talk given to the "Range Forum", hosted by the N. D. Chapter of Society for Range Management. Nov.19, 2007. Mandan, ND.
- [57] Soil respiration with plant influence: a multidisciplinary research. Oral presentation at NCCC31 2007 Annual Meeting, Columbus, Ohio. Mar. 14-15, 2007.
- [58] Carbon sequestration and exchange: a research overview. A talk given to the public on the occasion of the 25th Anniversary of the NDSU-Central Grasslands Research Extension Center, Streeter, North Dakota. Jun 28, 2006.
- [59] Ecosystem CO₂ exchange in a mixed-grass prairie: effects of grazing and drought. Oral presentation at NCCC31 2006 Annual Meeting, Eureka Springs, Arkansas. Mar. 13-14, 2006.

	[60]	Photosynthesis-light curves of 3 seeded species in a Conservation Reserve Program study field. Oral presentation at the Society of Range Management 58th Annual Meeting, Fort Worth, TX. Feb. 05-11, 2005.
	[61]	Modeling to assist production agriculture. Oral presentation at the NDSU Central Grasslands Research Extension Center 2002 Grass & Forage Research Review, Jan. 20, 2002.
	[62]	Water-relations of desert shrubs in the Mu Us Sandland, China. Oral presentation at Duke University, Department of Botany, Oct. 21, 1999. Durham, NC.
TRANSLATION (1)	[1]	 XJ. Dong and SY. Wang. 1999. How to Assess Sustainability? A Chinese translation of an article by Robert Prescott Allen, given at the IUCN 50th Anniversary Symposium Conference (3c), pp193–214.
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Editorial Appointments	 Irrigation Science, Associate Editor (2016 - present). Photosynthetica, Editorial Board Member (2008 - 2009); Associate Editor (2010 - 2013); Editorial Board Member (2014 - 2015); Associate Editor (2015 - present). Arid Land Research and Management, Associate Editor (2009 - 2023); Editorial Board Member (2024 - present).
Computer Skills	 Programming: Fortran, True BASIC, Minitab, MATLAB, R, gnuplot Alternative document preparation tools: IATEX, BIBTEX

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