Tala Awada
Agricultural Research Division & School of Natural Resources,
University of Nebraska-Lincoln
tawada@unl.edu
Short CV – December 2018

ACADEMIC INFORMATION

- Ph.D., Field: Physiological Plant Ecology. Department of Plant Sciences, University of Saskatchewan, Canada, 2000.
- M.Sc., Field: Environmental and Renewable Resources. Mediterranean Agronomic Institute of Chania, Greece, 1995.
- Specialized Post-Graduate Diploma (D.S.P.U), Field: Environmental and Renewable Resources. Mediterranean Agronomic Institute of Chania, Greece, 1993.
- B.Sc., Agriculture Engineering (Ingénieur Agronome). Lebanese University, Lebanon, 1992.

LANGUAGES

Arabic, English, French, Greek

PROFESSIONAL EXPERIENCE

2015-present	Associate Dean, Agricultural Research Division & Associate Director, Nebraska Agricultural Experimental Station, Institute of Agriculture and Natural Resources, University of Nebraska.
2012-2013	Interim Director, School of Natural Resources, University of Nebraska.
2012	Professor, School of Natural Resources, University of Nebraska.
2010-2013	Associate Director, School of Natural Resources, University of Nebraska.
2007-2012	Associate Professor, School of Natural Resources, University of Nebraska.
2008	Professional Leave, Visiting Scientist, Aristotle University of Thessaloniki, and Forest Research Institute at Thermis, Greece.
2001- 2007	Assistant Professor, School of Natural Resources, University of Nebraska. *Maternity Leaves*: 2002 & 2005.
1999 - 2001	Research Assistant Professor / 0.5 FTE, Department of Agronomy and Horticulture, University of Nebraska.

SELECTED HONORS, SCHOLARSHIPS AND AWARDS

- Fellow, Committee on Institutional Corporation (CIC), Academic Leadership Program (ALP), Big 10 Institutions, 2015-2016.
- Fellow, Robert Daugherty Water for Food Institute, University of Nebraska-Lincoln, 2015-Present.
- Nebraska State Museum Friends Advisory Committee, Research and Faculty Liaison, 2015-2016.
- Land Grant Institutions Leadership Program, LEAD 21, 2014-2015.
- Distinguished Expert, Hellenic Quality Assurance Agency (HQAA) for Higher Education, Greece, 2011.
- Dinsdale Family Faculty Award for Outstanding Teaching, Research and Outreach, IANR, UNL 2006.
- Member of the Board of Governors, Center for Great Plains Studies, 2004-2007.
- Fellow, Center for Great Plains Studies, 2003.

RESEARCH

Areas of Interest: Plant Ecophysiology, Plant Environmental Stresses, Water Relations, Gas Exchange, Invasive Woody Species, Grasslands and Forest Ecology.

Recent Publications

Awada, T., Skolaut, K., Battipaglia, G., Saurer, M., Riveros-Iregui, D., Schapaugh, A., Huddle J., Zhou, X., Martin, D., and Cherubini, P. (2019). Tree-ring stable isotopes show different ecophysiological strategies in native and invasive woody species of a semi-arid riparian ecosystem in the Great Plains of the USA. *Ecohydrology*. https://doi.org/10.1002/eco.2074

Bumann, E., Awada T., Wardlow B., Hayes M., Okalebo J., Helzer C., Mazis A., J. Hiller J., and Cherubini, P. (2019). Assessing Responses of Betula papyrifera to Climate Variability in a Remnant Population along the Niobrara River Valley in Nebraska through Dendroecological and Remote Sensing Techniques. *Canadian Journal of Forest Science*. Can. J. For. Res. 49: 423–433.

Bai, G., Ge, Y., Scoby, D., Leavitt, B., Stoerger, V., Kirchgessner, N., Irmak, S., Graef, G., Schnable, J., Awada, T. (2019). NU-Spidercam: A large-scale, cable-driven, integrated sensing and robotic system for advanced phenotyping, remote sensing, and agronomic research. *Computers and Electronics in Agriculture.* 160: 71-81.

Das Choudhury, S., Samal A., and Awada, T. (2019). Leveraging Image Analysis for High-Throughput Plant Phenotyping. *Frontiers*, accepted.

Aus Der Au, R., Awada,T., Battipaglia, G., Hiller, J., Saurer, M., and Cherubini, P. (2018). Tree rings of *Pinus ponderosa* and *Juniperus virginiana* show different responses to stand density and water availability in the Nebraska Grasslands. *American Midland Naturalist*. 180(1):18-36.

Wang, S., Zuo, X., Zhao, X., Awada, T., Luo, Y., Li Y., and Qu. H. (2018). Dominant plant species shape soil bacterial community in semiarid sandy land of northern China. *Ecology & Evolution* 8(3):1693-1704.

Das Choudhury, S., Bashyam, S., Qiu, Y., Samal, A., and Awada T. (2018). Holistic and component plant phenotyping using temporal image sequence. Plant Methods. 14:35.

Giannakas, K., Fulton, M., and Awada, T. (2017). Hiring leaders: Inference and disagreement about the best person for the job. *Palgrave Communications* 3, Article number: 17. https://www.nature.com/articles/s41599-017-0019-y.

Quinn, J.E., Awada, T., Trindale, F., Fulginiti, L., and Perrin, R. (2017). Combining habitat loss and agricultural intensification improves our understanding of drivers of change in avian abundance in a North American cropland anthrome. *Ecology & Evolution*, 7:803–814.

Hay, W., Bihmidine, S., Mutluc, N., Hoang, K.L., Awada, T., Week, D.P., Clemente, T.E., and Long, S. (2017). Enhancing soybean photosynthetic CO_2 assimilation using a cyanobacterial membrane protein, ictB. *Journal of Plant Physiology*, 212:58-68.

Msanne, J., Awada, T., Bryan, N.M., Schacht, W., Drijber, R., Li, Y., Zhou, X., Okalebo J., Wedin, D., Brandle, J., and Hiller, J. (2017). Ecophysiological responses of native invasive woody *Juniperus virginiana* L. to resource availability and stand characteristics in the semi-arid grasslands of the Nebraska Sandhills. *Photosynthetica*, 55:219-230.

Choudhury, S.D., Goswami, S., Bashyam, S., Samal, A., and Awada, T. (2017). Automated stem angle determination for temporal plant phenotyping analysis. Refereed proceedings, ICCV workshop on Computer Vision Problems in Plant Phenotyping (CVPPP), Venice - Italy.

Nguy-Robertson, A., Buckley, E.M., Suyker, A.S., Awada, T. (2016). Determining factors that impact the calibration of consumer-grade digital cameras used for vegetation analysis. *International Journal of Remote Sensing*, 37:3365–3383.

Mykleby, P.M., Lenters, J.D., Cutrell, G.J., Herrman, K.S., Istanbulluoglu, E., Scott, D.T., Twine, T.E., Kucharik, C.J., Awada, T., Soylu, M.E., and Dong, B. (2016). Energy and water response of a vegetated wetland to herbicide treatment of invasive *Phragmites australis. Journal of Hydrology*, 539:290-303.

Zhou, X., Schoeneberger, M.M., Brandle, J., Awada, T., Chu, J., Martin, D.L., Li, J., Li, Y., and Mize, C.W. (2015). Analyzing the uncertainties in use of forest-derived biomass equations for open-grown trees in agricultural land. *Forest Science*, 61:144–161.

Li, Y., Zhao, X., Zhang, F., Awada, T., Wang, S., Zhao, H., Zhang, T., and Li, Y. (2015). Accumulation of soil organic carbon during natural restoration of desertified grassland in China's Horqin Sandy Land. *Journal of Arid Land, 7:328-340.*

Mykleby, P.M., Awada, T., Lenters, J., Bihmidine, S., Yarina, A. and Young, S. (2015). Ecophysiological responses of invasive and native *phragmites australis* to temperature and nitrogen fertilization. *Great Plains Research*, 25:63-74.

Awada, T., Brozovic, N., and Koelsch, R. (2015). Implication of climate change on Nebraska's cgriculture. *In: The Implications of Climate Change for Nebraska: Summary Report of Sector-Based Roundtable Discussions* (W. Wilhite, and Morrow, K.). University of Nebraska-Lincoln, p 27-30.

Bihmidine, S., Cao, M., Kang, M., Awada, T., Van Etten, J.L., Dunigan, D.D., and Clemente, T.E. (2014). Expression of Chlorovirus MT325 aquaglyceroporin (aqpv1) in tobacco and its role in mitigating drought stress. *Planta*, 240:209-21.

Awada, T. (2014). Climate change and invasive species. *In: Understanding and Assessing Climate Change: Implications for Nebraska* (D.J. Bathke, Oglesby R.J., Rowe C.M., and Wilhite D.A.). University of Nebraska-Lincoln, p 54-55.

Li G., Froehlich J., Elowsky C., Msanne J., Ostosh A., Zhang C., Awada T., and Alfano J. (2014). Distinct *Pseudomonas* type III effectors utilize a cleavable transit peptide to target chloroplasts. *The Plant Journal*, 77: 310-321.

Awada, T., El-Hage, R., Geha, M., Wedin, D.A., Huddle, J.A., Zhou, X., Msanne, J., Sudmeyer, R.A., Martin, D.L., and Brandle, J.R. (2013). Intra-annual variability and environmental controls over transpiration in a 58-year-old even-aged stand of invasive woody *Juniperus virginiana* L. in the Nebraska Sandhills, USA. *Ecohydrology*, 6: 731-740.

Bihmidine, S., Lin, J., Stone, J.M., Awada, T., Specht, J.E., Clemente, T.E. (2013). Activity of the Arabidopsis RD29A and RD29B promoter elements in soybean. *Planta*, 237(1):55-64.

Li, Y., Brandle, J., Awada, T., Chen, Y., Hana, J., Zhang, F., Luo. Y. (2013). Accumulation of carbon and nitrogen in the plant–soil system after afforestation of active sand dunes in China's Horqin Sandy Land. *Agriculture, Ecosystems & Environment*, 177: 75–84.

Bazakos, B., Manioudaki, M.E., Therios, I., Voyiatzis, D., Kafetzopoulos, D., Awada, T., and Kalaitzis, P. (2012). Comparative Transcriptome Analysis of Two Olive Cultivars in Response to NaCl-Stress. *PLoS ONE.* 7(8): e42931 doi:10.1371/journal.pone.0042931.

Msanne, J., Xu, D., Konda, A.R., Casas-Mollano, J.A., Awada, T., Cahoon, E.B., and Cerutti, H. (2012). Metabolic and gene expression changes triggered by nitrogen deprivation in photoautotrophically grown microalgae *Chlamydomonas reinhardtii and Coccomyxa sp. C-169. Phytochemistry, 75:50-59.* (Award for most cited paper in 2012-2013)

Li, Y.Q., Awada, T., Shang, W., Chen, Y.P., Zhou, X.H., Zuo, X.A., Wang, S.K., Liu, X.P., and Feng, J. (2012). Mongolian pine plantations enhance soil physico-chemical properties and carbon and nitrogen capacities in semi-arid degraded sandy land in China. *Applied Soil Ecology*, 45: 1-9.

Chen Y., Li, Y., Awada, T., Han J., and Luo Y. (2012). Carbon sequestration in the total and light fraction soil organic matter along chronosequence in grazing exclosures in a semiarid degraded sandy site in China. *Journal of Arid Land*, 4:411-419.

Chen, Y., Li, Y., Zhao, X., Awada, T., Shang, W., and Han, J. (2012). Effects of Grazing Exclusion on Soil Properties and on Ecosystem Carbon and Nitrogen Storage in a Sandy Rangeland of Inner Mongolia, Northern China. *Environmental Management*, 50(4):622-632.

Zhou, X., Brandle, J., Awada, T., Schoeneberger, M.M., Martin, D.L., and Tang, Z. (2011). The use of forest-derived specific gravity for the conversion of volume to biomass for open-grown trees on agricultural land. *Biomass and Bioenergy*, 35: 17 2 1-17 3 1

Msanne, J., Jiusheng, L., Stone, J., and Awada, T. (2011). Characterization of abiotic stress-responsive *Arabidopsis thaliana* RD29A and RD29B genes and evaluation of transgenes. *Planta*, 234:97-107.

Huddle, J.A., Awada, T., Martin, D., Zhou, X., Pegg, S.E., and Josiah, S. (2011). Do invasive riparian woody plants affect hydrology and ecosystem processes? *Great Plains Research,* 21:49-71.

Bazakos, C., Manioudaki, M., Therios, I., Voyiatzis, D., Kafetzopoulos, D., Sarropoulou, E., Awada, T., and Kalaitzis, P. (2011). Gene expression analysis of olive tree (*Olea europaea* L.) in response to salt stress. *Acta Horticulturae,* 924:47-54.

Bihmidine, S., Bryan, N.M., Payne, K.R., Parde, M.R., Okalebo, J.A., Cooperstein, S.E., and Awada, T. (2010). Photosynthetic performance of invasive *Pinus ponderosa* and *Juniperus virginiana* seedlings under gradual soil water depletion. *Plant Biology,* 12: 668 - 675.

Eggemeyer, K.D., Awada, T., Harvey, F.E., Wedin, D., Zhou, X. and Zanner, R. (2009). Seasonal Changes in depth of water uptake for encroaching trees *Juniperus virginiana* and *Pinus ponderosa* and two dominant C_4 grasses in a semi-arid grassland. *Tree Physiology,* 29:157-169.

Selected Grants and Contracts (Total > $ 8M)

- Forest Density and Management Practices Effects on Soil and Vegetation Resilience in Nebraska. McIntire Stennis Forestry Funds (USDA). PI. T. Awada, $250,000, 2018-2023.
- Enhance Animal Protein Crops/Cattle. Foundation for Food & Agriculture Research, PI MacDonald, J., Co-Pi T. Awada, $1M, 2017-2021.
- Carbon Flux from Great Plains Agroecosystems Associated with the ARS LTAR Network, Cooperative Agreement with ARS/USDA, PI, $260,000, 2015-2020.
- Physiological and morphological characterization of wheat spike development in water limiting environment. Wheat Grants, Internal. P.I. Walia, H. Co-Pi T. Awada. $110,703.00, 2017-2020.
- Dual quantum cascade laser trace gas analyzer for innovative micrometeorological measurement techniques necessary for mitigating climate change through continuous monitoring and evaluation of greenhouse gas emissions from managed and natural ecosystems. NRI – UNL. P.I. J. Okalebo, Co-Pi T. Awada. $250,000. 2017.
- Improving soil sampling methodologies for the evaluation of spatial and temporal dynamics of soil microbial communities in managed agroecosystems. University of Nebraska Office of Research and Economic Development, UNL. PI. J. Okalebo, Co-PI T. Awada, $9,996, 2017-2018.
- Investment in Photosynthetic Infra-red Gas Analyzers (LI-6800) to Support Interdisciplinary Teams. IANR ARD, Strategic Funding. PI $47,409, 2016.
- Robotic Technologies for Automated Plant Phenotyping Using Wheat as a Model Plant. ARD Wheat program, IANR ARD University of Nebraska Foundation funding program. $94,346, 2015-2017.
- Urban Trees and Forests in a Changing Environment, McEntire Stennis Funds, USDA. PIs T. Awada, J. Brandle and G. Adams. $340,000, 2014-2018.
- Invasive woody species in grasslands and riparian forests of Nebraska: impacts on ecosystem processes, resilience and response to climate variability and change, McIntire Stennis Funds, USDA. PI $275,000, 2013-2018.
- Two collaborative confidential agreements with LiCor, PI. T. Awada., 2015-2016.
- Identifying and Addressing Soil Property Issues Affecting Roadside Vegetation Establishment. Nebraska Department of Roads (NDOR), PI Xu L., Co-PIs Awada T., Mamo M., Schacht W., and Blanco H. $80,000, 2014-2015.
- Reliable estimation and prediction of carbon inventory in woody plants in an agroforestry system. Agroforestry Center, USDA. Co-PI (PI. X. Zhou), $52,000, 2011-2012.
- Invasiveness of woody and herbaceous plant types into established prairie grassland communities. IANR Water and Land Conservation Research, UNL, Co-PI (PI. S. Young). $59,827. 2010-2012.
- Forty-first parallel agro-ecosystem sustainability and productivity. IANR Strategic Investments, Enhancing Interdisciplinary Teams, UNL, Co-PI (PI. L. Fulginiti). $373,720, June 2010-2013.
- Role of forbs and shrubs in semi-arid grasslands of Nebraska Sandhills. Anna Elliott Fund, UNL, PI. $60,000, 2009-2011.

- Estimation of evapotranspiration from riparian invasive species using remote sensing, modeling and in situ measurements in the Republican River basin. Nebraska Department of Natural Resources. (PI. D. Martin, Co-PIs. T. Awada, S. Verma, A. Irmak, and S. Irmak). $1,101,925, 2007-2011.
- Trees in the Great Plains: water and carbon uses, grasslands health and economic ramifications. McIntire Stennis Funds, USDA. PI $400,000, 2007-2013.
- Physiological effects of drought stress-responsive transgenes in soybeans. Interdisciplinary Funds, ARD-UNL. (PIs. T. Awada, J. Stone, J. Lin, T. Clemente, J. Specht and S. Bihmidine). $39,300. 2007-2009.
- Application and evaluation of advanced technologies for assessing the water balance of a forest ecosystem in Greece. Scientific and technological cooperation between RTD organizations in Greece (EU) and RTD organizations in the US. (T. Awada, PI. in US and K. Radoglou, PI. in Greece). €60,000 (Euros), 2006-2008.

Invited Talks and Contributed Presentations with Published Abstracts (2017-2018)

Awada, T. (2018). Role of high throughput plant phenotyping and its adoption for addressing current and emerging issues in agricultural research, 3rd Annual Symposium, Plant Phenotyping and Imaging Research Centre. October 17-18, Saskatoon, Canada.

Awada, T. (2018). Phragmites invasion and ecosystem resilience, NWCA Spring Training, Ramada Inn, Kearney April 4, 2018.

Awada, T., Awada, L., and Das Choudhurry, S. (2018). Role of high throughput plant phenotyping and its adoption for addressing current and emerging issues in agricultural research. 3rd international plant and algal phenomics meeting (IPAP), August 26-29, Prague.

Awada, T. (2018). Tree-rings stable isotopes show different adaptive strategies of native and invasive woody species to streamflow fluctuations along the Republican River in NE. 13th Platte River Basin Ecosystem Symposium, June 5-6, Wood River, NE.

Bai, G., Ge, Y., Leavitt, B., Gamon, J., Qi, Y., Awada, T., Graef, J., Irmak, S., Schnable, J., Scoby, D., and Stoerger, V. (2018) Capturing diurnal variation of phenotypic traits for breeding plots using UNL Field Plant Phenotyping Facility. AGU Annual Meeting, December 14-18. Washignton DC.

Gamon. J., Suyker, A., Walter-Shea, E., Arkebauer, T., Zygielbaum, A., Franz, T., Awada, T., Wardlow, B., Hmimina, G., Gholizadeh, H., Yu, R., Mazis, A., Wang, R., Guan, K., Miao, G., Avenson, T., Berry, J., Wedin, D., Kornfeld, A., and Moore, R. (2018). The Nebraska SIF Campaign - a Multi-Scale Field Experiment. AGU Annual Meeting, Washignton DC., December 14-18.

Das Choudhury, S., Gampa, S., Awada, T., and Samal, A. (2018). Deep Learning for Early Detection and Temporal Propagation of Drought Stress in Cotton Plants, 5th International Plant Phenotyping Symposium, Adelaide, October, 2-4, Australia.

Das Choudhurry, S., Samal, A., and Awada, T. (2018). Holistic and Component Plant Phenotyping Analysis using Visible Light Image Sequence. Phenome 2018, February 14-17, Tucson AR.

Awada, T. (2017). Application of plant phenotyping in agricultural research, Invited Speaker, 2nd Annual Symposium, Plant Phenotyping and Imaging Research Centre. Saskatoon, Canada. June 20-22.

Awada, T. (2017). Invasive species and biosecurity - The Sandhills of Nebraska. Biosecurity Seminar, UNL, May 18.

Awada, T. (2017). Plant phenomics in agroecosystems research. Chinese Academy of Sciences, Naiman Desertification Research Station. Inner Mongolia, China. September 9.

Awada, T. (2017). Woody species encroachment in semi-arid grasslands with emphasis on *Juniperus Virginiana*. Chinese Academy of Sciences, Lanzhou, China. September 14.

Awada, T., Gomez, R.-L., Bacher, H., Das Choudhury, S., Walia, H., Ge, Y., Stoerger, V. (2017). High throughput plant phenotyping application in addressing current and emerging issues in agricultural research. 10th Annual International Symposium on Agriculture, Athens, Greece. July 13-15.

Ge, Y. , Bai, G., Awada, T. N., Stoerger, V., Scoby, D., Graef, G., Schnable, J., 2017 AGU, New Orleans, LA, "High throughput plant phenotyping field facility at University of Nebraska-Lincoln and the first year experience", (December 2017).

Bai, G., Ge, Y. (Author Only), Irmak, S., Awada, T. N., ASABE Annual International Meeting, Spokane, WA, "High throughput field phenotyping facility at University of Nebraska-Lincoln". (July 2017).

Aus der Au, R., Awada, T., Egli, M., and Cherubini, P. (2017) Goodbye cowboy prairie! Tree Rings in Archaeology, Climatology and Ecology (TRACE) Conference, Svetlogorsk, Russia, May 16-21.

Bumann, E., Awada T., Wardlow, B., Hayes M., Helzer C., Hiller J., Cherubini P. (2017). Assessing climatic responses of *Betula papyrifera* (Paper Birch) in a remnant population along the Niobrara River in Nebraska through dendroecological and remote sensing techniques. Ecological Society Annual Meeting, Portland, August 6-11.

Bumann, E., Awada T., Wardlow, B., Hayes M., Helzer C., Hiller J., Cherubini P. (2017). Assessing climatic responses of *Betula papyrifera* (Paper Birch) in a remnant population along the Niobrara River in Nebraska through dendroecological and remote sensing techniques. Water and Food Conference, April 10-12, Lincoln, NE.

Choudhury, S., Goswami, S., Bashyam, S., Samal, A., and Awada, T. (2017). Automated stem angle determination for temporal plant phenotyping analysis. ICCV workshop on Computer Vision Problems in Plant Phenotyping, Venice, Italy.

Choudhury, S.D., Bashyam, S., Samal, A., and Awada, T. (2017) Automated leaf tracking using multi-view image sequences of maize plants for leaf-growth monitoring. AGU Fall Meeting, New Orleans, USA, December 15.

Mazis, A., Hiller, J., Morgan, P., Stoerger, V., Awada, T. (2017). Assessing morphological and physiological properties of forest species using high throughput plant phenotyping and imaging techniques. AGU Meeting, New Orleans, USA. December 15.

Mazis, A., Hiller, J., Morgan, P., Stoerger, V., Awada, T. (2017). Application of high throughput plant phenotyping in natural resources management. Phenome 2017, Tucson, AZ, USA. February 11-14.

Mazis, A., Hiller, J., Morgan, P., Stoerger, V., Awada, T. (2017). Assessing forest seedling response to water availability using high throughput plant phenotyping. Water for Food Global Conference, Lincoln, NE, USA. April 10-12.

Mazis, A., Hiller, J., Morgan, P., Stoerger, V., Awada, T. (2017). High throughput plant phenotyping: a new window to natural resources management and agricultural research. 10th Annual International Symposium on Agriculture, Athens, Greece. July 13-15.

Okalebo, J., Choudhury, S.D., Awada, T., Suyker, A., LeBauer, D., Newcomb, M., and Ward, T. (2017). Application of near-surface remote sensing and computer algorithms in evaluating impacts of agroecosystem management on Zea mays (corn) phenological development in the Platte River – High Plains Aquifer Long Term Agroecosystem Research Network field sites. Annual Geophysical Union meeting, New Orleans, Louisiana, December 15.

Okalebo, J., Suyker, A., Awada, T., Erickson, G., Wienhold B., and Schmer, M. (2017). The Platte River-High Plains Aquifer – Nebraska's Long-term agroecosystem research's efforts - water and food security, locally, nationally and globally. Daugherty Water for Food Global Institute Conference. Lincoln, NE. April 10-12.

Okalebo, J., Suyker, A., Awada, T., Erickson, G., Wienhold B., and Schmer, M. (2017). Collaborative Research Efforts by the Platte River- High Plains Aquifer Long Term Agroecosystem Network to promote and maintain sustainable ecosystem services. 4th Annual UNL ARD Faculty Meeting. Innovation Campus, University of Nebraska – Lincoln, August 11.

Wang, S., Zhao X., Awada, T., and Zuo, X. (2017). Ecological restoration of degraded sandy land using microbial organic compound in Horqin Sandy Land, Northern China. ESA Annual Meeting, Portland Oregon USA. August 6-11.

Wang, S., Zhao, X., Awada, T., and Zuo, X. (2017). Ecological restoration of degraded sandy grassland using microbial organic compound in Horqin Sandy Land, Northern China. Water for Food Conference, Lincoln NE, April 10-12.

Recent Sponsored Post-Doctoral Fellows, Research Assistant Professors, and Visiting Scholars

- Dr. Shaokun Wang, Visiting Scientist, China, Support from the Chinese Academy of Science (Nov. 2016 – Dec. 2017).
- Dr. Victor Hugo Pereira Moutinho, faculty at the Universiadade Federal do Oeste do Para, Energetic Natural Resources and Wood Science Technology, Brazil (Sept. – Oct. 2014).
- Dr. Jane Okalebo, Research Assistant Professor (2015-present).
- Dr. Joseph Msanne, Postdoctoral Fellow (2012-2013), Research Assistant Professor (2013-present), School of Natural Resources, UNL.
- Dr. Xinhua Zhou, Research Assistant Professor, School of Natural Resources, UNL (2006- 2012).
- Dr. Yuqiang Li, Visiting Scientist, China, Support from the Chinese Academy of Science (Feb. 2012 – Feb. 2013).
- Dr. John Quinn, Postdoctoral Fellow, School of Natural Resources, UNL (2010-2012).
- Dr. Julie Huddle, Research Assistant Professor, School of Natural Resources, UNL (2007-2011).
- Rita El-Hage, Visiting MS Student, Mediterranean Agronomic Institute of Chania, Crete, Greece (Sept. 2010 – May 2011).
- Christos Bazakos, Visiting PhD Student, Mediterranean Agronomic Institute of Chania, Crete, Greece (Feb. – Mar. 2010).
- Dr. Jihong Li, Visiting Scientist, China, Support from the Chinese Academy of Science (Mar - Dec 2011).

Current International Research Collaborations

Australia, Canada, China, Greece, Italy, and Switzerland

TEACHING

Classes Taught

University of Nebraska (F: Fall; S: Spring)

NRES 310 Introduction to Forest Management (F, annually 2001-2012)
NRES 406/806 Plant Ecophysiology: Theory and Practice (F 2004, 2006, 2008, 2012)
NRES 404 Forestry, Fisheries and Wildlife Seminar (S 2004, 2005, 2007)
NRES 896 Advanced Topics: Plant Ecophysiology (F 2004, 2010; 2017)
NRES 399/899 Independent Studies (S 2004, 2010; F 2007, 2009, 2010, 2014; S2016)
NRES Independent Study (8xx) Plant Ecophysiology (2018)
Education Media with NET and Platte Basin Time-lapse Project, 2016: Platte River Prairies: Woodlands https://vimeo.com/171821356

International

Short Course (15hrs), Plant Stress Physiology, Mediterranean Agronomic Institute of Chania-Crete, Greece (Annually, Nov-Dec, from 2004 to 2009)

UNL Study Abroad Class to Greece, Sustainability, Environment and Society, 2014 & 2016.

Graduate Students Advised

Graduate Students, Degree and Graduation Date (advised or co-advised)

July Fowler (MS, 2018-present), Jill Wieneke (MS, 2017-present), Rae Gomez (MS, 2016-present); Tasos Mazis (MS, 2016-present); Evan Bumann (MS, 2018); Tracie Lorenzo (Co-chair, MS, 2015); Colin Peake (Co-chair, MS, 2014), Adam Smith (MS, 2015), Kristen Skolaut (MS, 2012); Adam Yarina (MS,

Spring 2012); Saadia Bihmidine (PhD, Spring 2012); Jesse Milby (MS, 2011); Joseph Msanne (PhD, 2011); Rita El-Hage (MS, Mediterranean Agronomic Institute of Chania, Greece, 2011); Neal Bryan (2006-2009); Kathleen Eggemeyer (MS, 2005).

Graduate Committees, 24

Honor and UCARE Undergraduate Students: 5

RECENT LEADERSHIP AND ORGANIZATIONAL CITIZENSHIP

Agricultural Research Division – Administration, Associate Dean, 2015-present

- Contribute to the development and implementation of strategic plans for integrated system science research in ARD.
- Provide mentoring, service and support to individual faculty and facilitate/assist with team building of transdisciplinary teams.
- Work with the broad IANR community to meet its 2025 goals in delivering high quality disciplinary and transdisciplinary research, education and extension programs with strong local impact and global reach.
- Oversee the annual faculty and staff reporting system "Activity Insight – Digital Measures", serve as the contact person, and provide training to faculty and staff.
- Lead or Assist with internal and external granting programs managed through ARD.
- Administers the ARD Undergraduate Student Research competitive grant program, the Graduate Students Fellowship program, and the Larrick/Whitmore Graduate Student Travel Grants.
- Provide leadership to the Consortium for Integrated Translational Biology (CITB).
- Provide leadership to the UNL USDA-ARS Long-term Agroecosystem Research (LTAR) Network on the Platte River and High Plains Aquifer.
- Represent ARD and UNL on task forces.
- Contribute to the diversity and inclusiveness mission of ARD/IANR/UNL.
- Assist the Dean and Director, in conjunction with other ARD staff, in coordinating and facilitating IANR's broad research mission.

University of Nebraska

- Member, Executive Council for the Nebraska Center for Energy Sciences Research, UNL, 2019-Present.
- Co-Leader, Consortium for Integrated Translational Biology (C-ITB). Institute of Agriculture and Natural Resources, 2013-present.
- Co-Leader, Long Term Agro Ecosystem Network (UNL- ARS/USDA), 2014-present.
- Member, Water Sciences Laboratory Advisory Board, 2017-Present.
- Ex-Officio, Member, Committee on Teams, IANR, 2017.
- Member, Search Committee, Faculty/Director of Plant Phenomics, 2017-2018.
- Ex-Officio Member, Conflict of Interest in Research Committee (CIRC), 2016-2017, 2019-present.
- Reviewer, UNL Internal Proposals Competition including Layman, EPSCoR and MRI/NSF 2016-present.
- Member, NU Food, Energy, Water Systems Nexus, steering committee, 2015-2016.
- Evaluator, World Food Prize Nebraska Youth Institute, March 2016.
- Chair, Plant Science Symposium Organizing Committee on Plant Phenomics: From Pixels to Traits, University of Nebraska Center for Plant Science Innovation, 2015.
- Chair, Graduate Research Award Committee, Friends of the University of Nebraska State Museum (2015-present).
- Chair, Phenotyping Facility Committee, 2014-2017.

- University of Nebraska-Lincoln Research Council, Chair, 2009-2011 (Member 2008-2011), co-chair 2013-2014, and chair 2014-2015 (Member 2012-2015).
- Member, Complex Biosystems Graduate Program Admissions and Recruitment committee, 2014-2017.
- Member, Heuerman Lectures Speaker Selection Advisory Committee, 2013-2015.
- Member, University of Nebraska Research Advisory Board, 2009-2011 & 2013-2017.
- Member, International Advisory Committee, Institute of Agriculture and Natural Resources, 2013-2015.
- Member, Search Committee, University of Nebraska State Museum Director, 2013-2015.
- Member, Assistant Dean for ARD Search Committee, Institute of Agriculture and Natural Resources, 2013-2014.
- Member, Faculty Search Committee, Science Literacy Coordinator, Institute of Agriculture and Natural Resources, 2013.
- Member, Faculty Search Committee, Rangeland Ecologist, Department of Agronomy and Horticulture, 2013.
- University of Nebraska-Lincoln Conflict of Interest in Research Committee, Member, 2009-2012.
- University of Nebraska-Lincoln Agriculture Policy Center Planning Committee, Member, 2010-2012.
- University of Nebraska Plant Biology Major, SNR Representative, 2010-2014.

International/National/Regional

- Member, Riparian Vegetation Management Task Force, 2017-present (appointed by NE Governor).
- Organized, convened and chaired oral and poster sessions on Advanced Plant Phenotyping for Global Food Security: Lessons across Measurement Scales. American Geophysical Union, 2017. New Orleans.
- Organized and coordinated an oral session on developing water stress tolerant crops through phenotyping. Robert B. Daugherty Water for Food Global Institute Annual Conference. 2017, Lincoln NE.
- Member, Review Panel, Higher Education Challenge (HEC) Grant Program, NIFA, USDA. 2017.
- Member, External Evaluation Committee of the Agricultural University of Athens, Greece, May 2016.
- Member, External Evaluation Committee of the University of Thessaly, Greece, December 6-12, 2015.
- Member, Planning Committee for the 2016 & 2017 Water for Food Global Conference, 2015-2017.
- Member, Faculty Advisory Panel, Robert Daugherty Water for Food Institute, University of Nebraska – Lincoln, 2015-present.
- Research/Faculty Liaison, Advisory Committee, Friends of the University of Nebraska Natural History State Museum, 2015-present.
- Organizer, Roundtable Discussion on Climate Change and Agriculture in Nebraska, University of Nebraska-Lincoln, 2015.
- Chair, Athens Institute for Education and Research, Agricultural Research Unit, 2013-2015.
- Member, External Evaluation Committee of the Department of Forestry & Natural Environment, Aristotle University of Thessaloniki, Greece, May 28-June2, 2012.
- Member, External Evaluation Committee of the Graduate Program in Natural Resource Management, Texas Tech University, USA. Jan-Feb. 2012.
- Member, External Evaluation Committee of the Department of Forestry, Management of the Environment and Natural Resources, Democritus University of Thrace, Greece, May 5-9, 2011
- Ad hoc reviewer for 24 international journals.

School of Natural Resources – Administration, Associate/Interim Director 2010-2013

- Provide Leadership and Administrative Oversight to Strategic Planning, SNR Operations, Research, Outreach, and Graduate and Undergraduate Programs in the School of Natural Resources.
- Coordinate the School of Natural Resources Recruitment Efforts and Supervise the Student Services Area and Staff.
- Organize and Coordinate the School of Natural Resources Fall Seminars Series.
- Foster New Partnerships and Strengthen Existing Collaborations between faculty and Federal and State Agencies in NE and Faculty in the School of Natural Resources.
- Serve and Represent the School of Natural Resources on Departmental and University Committees as needed.
- Foster Mentorship for New Faculty and Interdisciplinary Research in the School.
- As the Interim Director, Evaluate SNR Faculty and Oversee the Unit Budget.

School of Natural Resources

- Member, Promotion and Tenure Committee, School of Natural Resources, 2014-2015.
- Coordinator, Fall Research Seminar Series, School of Natural Resources, 2010-2014.
- Coordinator of the geography program, School of Natural Resources, 2013-2014.
- Co-Chair, Director Search Committee, School of Natural Resources, 2011-2012.
- Member, Faculty Search Committee, Remote Sensing, School of Natural Resources, 2011-2012.
- Ex-Officio, Graduate Committee, School of Natural Resources, 2010-2013.
- Ex-Officio, Faculty Advisory Committee, School of Natural Resources, 2010-2013.
- Undergraduate Curriculum Committee, School of Natural Resources, Ex-Officio, 2011-2013.
- Mentor, Four Faculty Members.
- Chair, Graduate Committee, School of Natural Resources, 2006-2010.

LEADERSHIP AND PROFESSIONAL DEVELOPMENT (Recent)

- North Central Region's Administrative Management Boot Camp, Detroit, 2018.
- Associate Deans Leadership Program, UNL 2018-2019.
- DiSC Assessment 2017-2018.
- Participated in the "Knowinnovation" training program for facilitating and accelerating academic, scientific, interdisciplinary innovation and team building, UNL, 2015-2016.
- Participated in the Committee on Institutional Corporation (CIC), Academic Leadership Program (ALP), Big 10 Institutions, 2015-2016.
- Participated in the Land Grant Institutions Leadership Program, LEAD 21, 2014-2015.
- Participated in the Talent Dynamics Profile Assessment, UNL, 2015.