#### **CURRICULUM VITA**

John A. Guretzky Grassland Systems Ecologist Department of Agronomy and Horticulture University of Nebraska-Lincoln 310 Keim Hall Lincoln, NE 68583-0915 jguretzky2@unl.edu 402-472-1516

#### **EDUCATION**

Iowa State University Doctor of Philosophy, 2002 Major: Agronomy (Crop Production and Physiology) Advisor: Dr. Kenneth J. Moore Dissertation title: "Distribution of legumes and plant diversity in pastures that vary in landscape position and grazing management"

University of Nebraska-Lincoln Bachelor of Science, 1996 Major: Natural Resources (Environmental Studies) Advisor: Dr. Steve Waller

#### **PROFESSIONAL EXPERIENCE**

Timeline	Position	Institution/Organization
2015 – Present	Associate Professor	Department of Agronomy and Horticulture
		University of Nebraska-Lincoln
2009 - 2015	Assistant Professor	Department of Agronomy and Horticulture
		University of Nebraska-Lincoln
2006 - 2009	Research Agronomist	Agricultural Division
		Samuel Roberts Noble Foundation
2003 - 2006	Postdoctoral Fellow	Natural Resources Branch
		US Army Corps of Engineers
		Construction Engineering Research Laboratory
1998 - 2002	Graduate Research Assistant	Department of Agronomy
		Iowa State University
1997	Intern	Land Institute
1996	Program Assistant	Scientific and Natural Areas Program
		Department of Natural Resources
		State of Minnesota
1996	Intern	Cedar Creek Natural History Area
		University of Minnesota
1994 - 1995	Undergraduate Research Assistant	Conservation and Survey Division
		University of Nebraska-Lincoln

### **RESEARCH ACCOMPLISHMENTS (0.58 FTE)**

#### Grants

- UNL Total: \$4.18 million; My lab: \$664,286.
  - Cover Crop Germplasm and Breeding in Support of New Cultivar Development. Foundation for Food and Agriculture Research. \$150,000. Noble Research Institute (lead). 03/01/18 02/28/222.
  - Developing Research and Extension Skills of Students in Integrated Agronomic Systems. USDA-NIFA-AFRI-ELI. \$275,667. Guretzky, J.A. (lead). 03/01/2016 02/28/2019.
  - Improving Forage Mass and Nutritive Value of Pastures by Interseeding Summer Annuals. UNL-IANR-ARD. \$7,740. Guretzky, J.A. (lead). 02/03/2017 01/31/2018.
  - Evaluation of Methods to Improve Indigenous Forb and Shrub Establishment in Rangelands. UNL-IANR-ARD Water & Land Conservation. \$30,000. Guretzky, J.A. (lead). 01/01/2016 12/31/2017.
  - Enhancing Resiliency of Beef Production Under Shifting Forage Resources. Hatch-Multistate Enhanced Research Funding Program. Univ. of Nebraska-Lincoln. IANR-ARD. \$497,000. MacDonald, J. (lead). 1/1/2015 – 9/30/2019.
  - Management and Environmental Factors Affecting Nitrogen Cycling and Use Efficiency in Forage-Based Livestock Production Systems. Hatch-Multistate Supplemental Research Funding Program. Univ. of Nebraska-Lincoln. IANR-ARD. \$150,000. Guretzky, J.A. (lead). 1/1/2015 9/30/2019.
  - Grazing Management Effect on Micro- and Macro-Scale Fate of Carbon and Nitrogen in Rangelands. USDA-NIFA-AFRI Foundational Program Grant. \$497,000. Mamo (lead). 9/1/2013 8/31/2017.
  - Agro-ecosystem Approach to Sustainable Biofuels Production via the Pyrolysis-Biochar Platform. USDA-NIFA-AFRI Sustainable Bioenergy Program. \$1,916,143. Guretzky, J.A. (lead). 9/1/2013 – 8/31/2017.
  - NC-1182 Nitrogen Cycling, Loading, and Use Efficiency in Forage-Based Livestock Production Systems. Univ. of Nebraska Agricultural Experiment Station Grant.
    \$100,000. PI: Schacht, W. Co-PI: Klopfenstein, T., and J. Guretzky. 10/1/2012 – 9/30/2014.
  - Demonstrating Mob Grazing Impacts in the Northern Great Plains on Grazingland Efficiency, Botanical Composition, Soil Quality, and Ranch Economics. USDA-NRCS Conservation Innovation Grant. \$330,256. PI: Guretzky, J. Co-PI: Schacht, W., Volesky, J., Mamo, M., and Stockton, M. 10/1/2011 – 9/30/2014.
  - Agro-ecosystem Approach to Sustainable Biofuels Production via the Pyrolysis-Biochar Platform. USDA-NIFA-AFRI Sustainable Bioenergy Program. \$460,239. PI: Guretzky, J. Co-PI: Glewen, K., Perrin, R.K., Heng-Moss, T., Yuen, G., Namuth Covert, D., Wegulo, S., Hay, F., Baxendale, F., and G. Nugent. 8/1/2013 – 7/31/2014.
  - Forage Potential in RWB Wetlands. Rainwater Basin Joint Venture. \$42,000. PI: Guretzky, J. Co-PI: Hillhouse, H. 6/1/2011 6/30/2014.
  - Patch burn grazing in grasslands and their resilience to burning and drought. Univ. of Nebraska Office of Research & Economic Development Faculty Seed Grant. \$10,000. PI: Guretzky, J. 1/1/2013 –12/31/2013.

- LI-8100A Automated Soil CO<sub>2</sub> Flux System for Grassland Systems Ecology Research. Univ. of Nebraska Research Equipment Grant. \$15,144. PI: Guretzky, J. Co-PI: Mamo, M., Schacht, W., and Volesky, J. 6/17/2013 9/30/2013.
- Dissolved Carbon and Nitrogen in Ultra-High Stocking Density Grazed Pasture of the Nebraska Sandhills. Univ. of Nebraska Research Equipment Grant. \$14,402. PI: Mamo, M., Co-PI: Guretzky, J., Blanco, H., Wingeyer, A. 6/17/2013 – 9/30/2013.

Research Travel Grant. Univ. of Nebraska Foundation. \$500. PI: Guretzky, J. 2013.

- Improvement of Grasslands for Beef Cattle Production, Bird Habitat, and Botanical Diversity. Univ. of Nebraska Foundation. \$60,000. PI: Guretzky, J. Co-PI: Burbach, M., Powell, L.A., Klopfenstein, T., Rasby, R. Schacht, W., and M. Stockton. 1/1/2011 – 12/31/2013.
- Agro-ecosystem Approach to Sustainable Biofuels Production via the Pyrolysis-Biochar Platform. USDA-NIFA-AFRI Sustainable Bioenergy Program. \$347,414. PI: Guretzky, J. Co-PI: Glewen, K., Perrin, R.K., Heng-Moss, T., Yuen, G., Namuth Covert, D., Wegulo, S., Hay, F., Baxendale, F., and G. Nugent. 6/13/2012 – 7/31/2013.
- Greenhouse Gas Emissions and Nitrogen Cycling from Beef Production Systems: Effect of Climate, Season, Production System, Diet and Management. USDA-NIFA-AFRI Climate Change Planning Grant. \$50,000. PI: Erickson, G. Co-PI: Guretzky, J., Schacht, W., Arkebauer, T., Klopfenstein, T., Rasby, R., Liska, A., Verma, S., and A. Suyker 12/01/2011 – 11/30/2011.
- Nitrogen Cycling and Greenhouse Gas Emissions in Pasture and Feedlot Production Systems. UNL-IANR Strategic Investments Grant. \$189,468. PI: Erickson, G. Co-PI: Guretzky, J., Schacht, W., Arkebauer, T., Klopfenstein, T., Rasby, R., Liska, A., Verma, S., and A. Suyker. 4/1/2010 – 6/30/2012.
- Agro-ecosystem Approach to Sustainable Biofuels Production via the Pyrolysis-Biochar Platform. USDA-NIFA-AFRI Sustainable Bioenergy Program. \$361,342. PI: Guretzky, J. Co-PI: Glewen, K., Perrin, R.K., Heng-Moss, T., Yuen, G., Namuth Covert, D., Wegulo, S., Hay, F., Baxendale, F., and G. Nugent. 8/1/2011 – 7/31/2012.
- Switchgrass and Native Rangeland Management for Grazing and Bioenergy. USDA-NRCS Conservation Innovation Grant. \$535,611 PI: Guretzky. Co-PIs: Biermacher, Mosali, Gee, and Blanton. 8/01/2009 – 7/31/2012
- Utilization and Value of Switchgrass in a Dual-Purpose Stocker Cattle and Bioenergy System. Oklahoma Bioenergy Center. \$400,000 PI: Cook. Co-PIs: Guretzky, Biermacher, and Reuter. 04/01/2008 – 12/31/2010
- Biomass Production and Nitrogen Responses of Perennial Grasses for Bioenergy Under Dryland and Irrigated Conditions. Oklahoma Bioenergy Center. \$130,000. PI: Guretzky. Co-PIs: Biermacher, Cook, and Reuter. 04/01/2008 – 12/31/2009
- Production Scale Agronomics and Economics of Switchgrass for Bioenergy Across the Southern Great Plains. Ceres, Inc. \$890,000. PI: Guretzky. Co-PIs: Biermacher, and Cook. 04/01/2007 12/31/2011

## Journal articles

1. Schick, B.D., J.A. Guretzky, W.H. Schacht, and M. Mamo. 2019. Dietary nutritive value, dung quality, decomposition, and nutrient movement into soil in smooth bromegrasspastures. Crop Sci. Accepted: 26 Dec. 2018. Published Online First:

- 2. Guretzky, J.A., C.D. Dunn, and A. Bishop. 2018. Plant community structure and forage nutritive value of reed canarygrass-invaded wetlands. Agronomy Journal 110:200-209.
- 3. Warner, J.M., A.J. Doerr, G.E. Erickson, J.A. Guretzky, R.J. Rasby, A.K. Watson, and T.J. Klopfenstein. 2017. Case Study: Supplementation of cow-calf pairs grazing smooth bromegrass pastures with ethanol by-products and low-quality forages. The Professional Animal Scientist 33:764-770.
- Snell, L.K., J.A. Guretzky, V.L. Jin, R.A. Drijber, and M. Mamo. 2016. Ruminant urine increases uptake but decreases relative recovery of nitrogen by smooth bromegrass. Crop, Forage and Turfgrass Management. DOI: 10.2134/cftm2016.0022. Accepted: 11/3/16, Posted: 12/2/16 on <u>https://dl.sciencesocieties.org/publications/cftm/first-look</u>.
- Guretzky, J.A., C. Dunn, and H. Hillhouse. 2016. Long-term Sandhills prairie responses to precipitation, temperature, and cattle stocking rate. Plant Ecology. 217:969-983. DOI: 10.1007/s11258-016-0622-9.
- Nugent, G., Kohmetscher, A., Namuth-Covert, D., Guretzky, J., Murphy, P., Lee, D. (2016). Learning from online modules in diverse instructional contexts. (vol. 12, pp. 113-121). Santa Rosa, CA: Interdisciplinary Journal of e-Skills and Lifelong Learning. Informing Science Institute.
- Parlak, A.O., M. Parlak, H. Blanco-Canqui, W.H. Schacht, J.A. Guretzky, and M. Mamo. 2015. Patch burning: implications on water erosion and soil properties. J. Environ. Quality 44:903-909. doi:10.2134/jeq2014.12.0523; accepted 30 Jan. 2015.
- Wingeyer, A.B., J.A. Guretzky, W.H. Schacht, and T.J. Klopfenstein. 2015. Reduced nitrogen mineralization and litter decomposition in unfertilized smooth bromegrass pastures. Crop Science 55:1843-1853. doi:10.2135/cropsci2014.10.0677; accepted 17 Jan. 2015.
- 9. Guretzky, J.A., A.B. Wingeyer, W.H. Schacht, T.J. Klopfenstein, and A. Watson. 2014. Soil organic matter and root and rhizome responses to management strategies in smooth bromegrass pastures. Agronomy Journal 106:1886-1892 doi:10.2134/agronj14.0157
- Guretzky, J.A., A. Kohmetscher, and D. Namuth-Covert. 2014. Perennial grass growth and development. Web lesson. Natural Sciences Education. 43:94 doi:10.4195/nse2013.09.0030.
- Snell, L.K., J.A. Guretzky, V.L. Jin, R.A. Drijber, and M. Mamo. 2014. Nitrous oxide emissions and herbage accumulation in smooth bromegrass pastures with nitrogen fertilizer and ruminant urine application. Nutrient Cycling in Agroecosystems 98:223-234. doi:10.1007/s10705-014-9607-z.
- 12. Guretzky, J.A., W.H. Schacht, A.B. Wingeyer, T.J. Klopfenstein, and A. Watson. 2014. Litter deposition and nitrogen return in rotationally stocked smooth bromegrass pastures. Agronomy Journal 106:175-184. doi:10.2134/agronj2013.0282
- Guretzky, J.A., W.H. Schacht, L. Snell, J. Soper, S. Moore, A. Watson, and T.J. Klopfenstein. 2013. Nitrogen input effects on herbage accumulation and presence of pasture plant species. Agronomy Journal 105:915-921. doi:10.2134/agronj2012.0458
- Kering, M.K., J.A. Guretzky, S.M. Interrante, T.J. Butler, J.T. Biermacher, and J. Mosali. 2013. Harvest timing affects switchgrass production, forage nutritive value, and nutrient removal. Crop Science 53:1809-1817. doi: 10.2135/cropsci2012.10.0568
- 15. Kering, M.K., T.J. Butler, J.T. Biermacher, J. Mosali, and J.A. Guretzky. 2013. Effect of potassium and nitrogen fertilizer on switchgrass productivity and nutrient removal rates

under two harvest systems on a low potassium soil. Bioenergy Research 6:329-335. DOI 10.1007/s12155-012-9261-8

- Haque, M. J.T. Biermacher, M.K. Kering, and J.A. Guretzky. 2013. Economic evaluation of switchgrass feedstock production systems tested in potassium-deficient soils. Bioenergy Research. DOI 10.1007/s12155-013-9368-6 (Published online: 25 August)
- Guretzky, J., A. Kohmetscher, and D. Namuth-Covert. 2013. Grass seed structure and seedling emergence. Web lesson. Journal of Natural Resources and Life Sciences Education 42 doi:10.4195/nse.2012.0018w
- Foster, J.L., J.A. Guretzky, C. Huo, M.K. Kering, and T.J. Butler. 2013. Effects of row spacing, seeding rate, and planting date on establishment of switchgrass. Crop Science 53:1-6. doi: 10.2135/cropsci2012.03.0171
- 19. Butler, T.J., M.K. Kering, C. Huo, and J.A. Guretzky. 2012. Effect of safener, activatedcharcoal coated seed, and charcoal banding on establishment of switchgrass receiving pre-emergent herbicides. Online. Forage and Grazinglands doi:10.1094/FG-2012-1214-01-RS.
- Haque, M., J.T. Biermacher, M. Kering, and J.A. Guretzky. 2012. Economics of alternative fertilizer supply systems for switchgrass feedstock produced in phosphorusdeficient soils. Online. Bioenergy Research. doi:10.1007/s12155-012-9264-5.
- Biermacher, J.T., R. Reuter, M.K. Kering, J.K. Rogers, J. Blanton, Jr., J. Guretzky, and T.J. Butler. 2012. Expected economic potential of substituting legumes for nitrogen in bermudagrass pastures. Crop Science. 59:1923-1930.
- Butler, T.J., J.P. Muir, C. Huo, and J.A. Guretzky. 2012. Switchgrass biomass and nitrogen yield with over-seeded cool-season forages in the southern Great Plains. Online. Bioenergy Research. doi:10.1007/s12155-012-9225-z.
- 23. Guretzky, J.A., T.J. Butler, and J. Muir. 2012. Adaptation of annual forage legumes in the southern Great Plains. Great Plains Research. 22:35-43.
- 24. Kering, M.K., J.T. Biermacher, T.J. Butler, J. Mosali, and J.A. Guretzky. 2012. Biomass yield and nutrient responses of switchgrass to phosphorus fertilization. Bioenergy Research. 5:71-78.
- 25. Kering, M.K., T.J. Butler, J.T. Biermacher, and J.A. Guretzky. 2012. Biomass yield and nutrient removal rates of perennial grasses under nitrogen fertilization. Bioenergy Research. 5:61-70. (DOI 10.1007/s12155-011-9167-x. Published online first: 25 November 2011).
- 26. Kering, M.K., J. Guretzky, J. Mosali, and E. Funderburg. 2011. Effect of nitrogen fertilizer rate and harvest season on forage yield, quality, and macronutrient concentrations in 'Midland' bermudagrass. Communications in Soil Science and Plant Analysis 42:1958-1971.
- Guretzky, J.A., J.T. Biermacher, B.J. Cook, M.K. Kering, and J. Mosali. 2011. Switchgrass for forage and bioenergy: harvest and nitrogen rate effects on biomass yields and nutrient composition. Plant Soil. 339:69-81.
- Guretzky, J.A., M. Kering, J.T. Biermacher, E. Funderburg, and J. Mosali. 2010. Fertilizer rate effects on forage yield stability and nutrient uptake of Midland bermudagrass. Journal of Plant Nutrition. 33:1819-1834.
- 29. Guretzky, J.A., Ball, J., and Cook, B.J. 2008. Nitrogen fertilizer rate and weather dictate nutritive value of fall stockpiled bermudagrass. Online. Forage and Grazinglands doi:10.1094/FG-2008-0118-01-RS.

- Guretzky, J.A., K.J. Moore, C.L. Burras, and E.C. Brummer. 2007. Plant species richness in relation to pasture position, management, and scale. Agriculture, Ecosystems & Environment. 122:387-391.
- 31. Guretzky, J.A., J.S. Fehmi, and A.B. Anderson. 2006. Grazing and military vehicle interaction on grassland soils and vegetation. Great Plains Research. 16:51-61.
- Guretzky, J.A., K.J. Moore, E.C. Brummer, and C.L. Burras. 2005. Species diversity and functional composition of pastures that vary in landscape position and grazing management. Crop Science. 45:282-289.
- Guretzky, J.A., K.J. Moore, C.L. Burras, and E.C. Brummer. 2004. Distribution of legumes along gradients of slope and soil electrical conductivity (EC<sub>a</sub>) in pastures. Agronomy Journal. 96:547-555.
- Guretzky, J.A., K.J. Moore, A.D. Knapp, and E.C. Brummer. 2004. Emergence and survival of legumes seeded into pastures varying in landscape position. Crop Science. 44:227-233.
- 35. Guretzky, J.A. and S.M. Louda. 1997. Evidence for natural biological control: insects decrease survival and growth of a native thistle. Ecological Applications. 7:1330-1430.

# **Book chapters**

 Guretzky, J.A. 2018. Chapter 9 Plant Interactions. In Forages Volume II. The Science of Grassland Agriculture, 7th Edition. Editors: K.J. Moore, D. Redfearn, M. Collins, and C.J. Nelson. Blackwell Publishing, Ames, Iowa. (Accepted/In-Press on 20 Dec. 2018; Final submission on 18 Dec. 2018; 2nd submission reviews received on 21 Nov. 2018; 2nd submission on 14 Nov. 2018; 1st submission reviews received on 3 Aug. 2018).

## **Conference proceedings**

- Nugent G., A. Kohmetscher, D. Namuth-Covert, J. Guretzky, P. Murphy, and D. Lee. 2015. Learning from online modules in diverse instructional contexts. In Proceedings of E-Learn: World Conference on E-Learning in Corporate, Government, Healthcare, and Higher Education 2015. Chesapeake, VA. Association for the Advancement of Computing in Education (AACE). p. 872-877.
- Biermacher, J.T., R. Reuter, T.J. Butler, M.K. Kering, J.D. Springer, J.K. Rogers, J.R. Blanton, Jr., and J.A. Guretzky. 2011. Economic potential of substituting legumes for nitrogen in warm season pastures used for stocker cattle grazing. Proc.18th Int. Farm Management Assoc. Congr. p. 362-368.
- Kering, M.K., J.T. Biermacher, R. Reuter, T.J. Butler, J.D. Springer, J.K. Rogers, J. Blanton, Jr., J.H. Bouton, and J.A. Guretzky. 2010. Economic potential for substituting synthetic nitrogen in warm season grasses used for stocker cattle grazing. Journal of Agricultural and Applied Economics 582: 42-43.
- Guretzky, J.A., M.K. Kering, J.T. Biermacher, and B.J. Cook. 2009. Switchgrass for forage and bioenergy: II. Effects of P and K fertilization. The Proceedings of the International Plant Nutrition Colloquium XVI. University of California, Davis. Online. http://repositories.cdlib.org/ipnc/xvi/1318.
- Kering, M.K., J.T. Biermacher, B.J. Cook, and J.A. Guretzky. 2009. Switchgrass for forage and bioenergy: I. Effects of nitrogen rate and harvest system. The Proceedings of the International Plant Nutrition Colloquium XVI. University of California, Davis. Online. http://repositories.cdlib.org/ipnc/xvi/1158.

- Guretzky, J.A., B.J. Cook, J.T. Biermacher, R.R. Reuter, J. Mosali and M. Kering. Utilization and value of switchgrass in a dual purpose stocker cattle and bioenergy system. 2008 Association for the Advancement of Industrial Crops 20<sup>th</sup> Annual Meeting. College Station, TX, 7-11 Sep. 2008
- Guretzky, J.A. and J.L. Baker. Dry weather limited 2006 forage yields of small grains in southern Oklahoma. Published in American Forage and Grasslands Council Annual Conference Proceedings. Joint AFGC and NEBCSA Conference in State College, PA, 24-26 June 2007
- 8. Guretzky, J.A., K.J. Moore, E.C. Brummer, and M.H. Wiedenhoeft. Multi-scale sampling of plant diversity in pastures that vary in grazing management and landscape position. Proceedings of the American Forage and Grassland Council. 11:80-84. Annual Meeting of the American Forage and Grassland Council. July 2002.
- 9. Barker, D.J., K.J. Moore, and J.A. Guretzky. Spatial variation in species richness under contrasting topographies and grazing regimes. Proceedings of the American Forage and Grassland Council. 11:222-226. Annual Meeting of the American Forage and Grassland Council. July 2002.
- Gosselin D.C., J.F. Ayers, and J.A. Guretzky. 1995. Evaluation of irrigation wells as sampling mechanisms. Clean Water-Clean Environment-21st Century. Proceedings. Kansas City, Missouri. American Society of Agricultural Engineers. p. 113-116.

# **Conference presentations and abstracts**

- 1. Dallmann. J.D., J.A. Guretzky, W.H. Schacht, and J. D. Volesky. 2017. Plant community response to disturbances in Nebraska Sandhills prairie. ASA-CSSA-SSSA International Annual Meetings, Tampa, FL. 22-26 October.
- 2. La Vallie, M., J.A. Guretzky, W. Schacht, D.D. Redfearn, and B.E. Anderson. 2017. Establishment of perennial legumes with sorghum-sudangrass as a companion crop. ASA-CSSA-SSSA International Annual Meetings, Tampa, FL. 22-26 October.
- Mamo, M., W. Schacht, A. Wingeyer, J. Volesky, H. Yang, J. Bradshaw, P. Sutton, and J. Guretzky. 2017. Grazing management effect on carbon and nitrogen in rangelands. ASA-CSSA-SSSA International Annual Meetings, Tampa, FL. 22-26 October.
- Guretzky, J.A., J. Volesky, M. Stephenson, J.L. Moyer, W.H. Fick, and K.R. Harmoney. 2016. Establishment of annual warm-season grasses in cool-season grass pastures. ASA-CSSA-SSSA International Annual Meetings, Phoenix, AZ. 6-9 November.
- Guretzky, J.A., H. Blanco, R.W. Elmore, D.D. Redfearn, and M. Howell-Smith. 2016. Developing research and extension skills of students in integrated agronomic systems. ASA-CSSA-SSSA International Annual Meetings, Phoenix, AZ. 6-9 November.
- La Vallie, M.N., J.A. Guretzky, W. Schacht, D.D. Redfearn, and B.E. Anderson. 2016. Establishment of binary perennial legume-annual warm-season grass mixtures. ASA-CSSA-SSSA International Annual Meetings, Phoenix, AZ. 6-9 Nov. 2016.
- Muniz, J.O., J.A. Guretzky, D.D. Redfearn, and B.E. Anderson. 2016. Seeding rate effects on forage mass of sod-seeded sorghum sudangrass. ASA-CSSA-SSSA International Annual Meetings, Phoenix, AZ. 6-9 November.

- Guretzky, J.A., W.H. Schacht, T.J. Klopfenstein, and A. Wingeyer. Nitrogen use efficiency and cycling in pastures managed with reduced nitrogen inputs. ASA-CSSA-SSSA International Annual Meetings, Minneapolis, MN. 15-18 Nov. 2015.
- Redfearn, D.D., R.B. Mitchell, K.P. Vogel, J.A. Guretzky, G.E. Erickson, T.J. Klopfenstein, and S. Edme. 2015. Cool-season perennial grass options for the western Corn Belt. ASA-CSSA-SSSA International Annual Meetings, Minneapolis, MN. 15-18 Nov. 2015.
- Schick, B.D., J.A. Guretzky, W.H. Schacht, and M. Mamo. 2015. Dung decomposition dynamics as a function of cattle diet. ASA-CSSA-SSSA International Annual Meetings, Minneapolis, MN. 15-18 Nov. 2015.
- Schick, B.D., J.A. Guretzky, W.H. Schacht, and M. Mamo. 2015. Grazing cattle diet effect on dung decomposition and soil nutrient movement. ASA-CSSA-SSSA International Annual Meetings, Minneapolis, MN. 15-18 Nov. 2015.
- Schick, B.D., J.A. Guretzky, W.H. Schacht, and M. Mamo. 2015. Influence of cattle diet on dung decomposition and CO<sub>2</sub> flux. 68<sup>th</sup> Annual Society for Range Management Technical Training & Trade Show. Jan. 31 – Feb. 6, 2015. Sacramento, CA.
- Guretzky, J.A., A. Wingeyer, W.H. Schacht, J. Volesky, and M. Mamo. 2014. Demonstrating mob grazing impacts in the Nebraska Sandhills. ASA-CSSA-SSSA International Annual Meetings, Long Beach, CA. 2-5 Nov. 2014.
- Guretzky, J.A. A. Kohmetscher, D. Namuth-Covert, and G. Nugent. 2014. Teaching students how perennial grasses grow and develop: online learning objectives and assessment. CSSA-SSSA International Annual Meetings, Long Beach, CA. 2-5 Nov. 2014.
- Guretzky, J.A., W.H. Schacht, A. Wingeyer, and T.J. Klopfenstein. 2013. Litter dynamics and particulate organic matter fractions in smooth bromegrass pastures under reduced nitrogen inputs. ASA-CSSA-SSSA International Annual Meetings, Tampa, FL. 3-6 Nov. 2013.
- Wingeyer, A.B., M. Mamo, J.A. Guretzky, P.J. Sutton, W. Schacht, and J. Volesky. 2013. Fate of carbon around excreta patches. ASA-CSSA-SSSA International Annual Meetings, Tampa, FL. 3-6 Nov. 2013.
- 17. Haque, M., J.T. Biermacher, M. Kering, and J.A. Guretzky. 2013. Economic evaluation of switchgrass feedstock production systems tested on potassium-deficient soils. Western Agricultural Economics Association Annual Meeting. Monterey, CA. 26-28 June 2013.
- Guretzky, J.A., W.H. Schacht, L.K. Snell, J. Soper, S.K. Moore, A.K. Watson, and T.J. Klopfenstein. 2013. Nitrogen input effects on herbage yield and presence of pasture plant species. Society for Range Management 66<sup>th</sup> Annual Meeting, Technical Training, and Trade Show, Oklahoma City, OK. 2-8 Feb. 2013.
- Schiltz, B.J., J.A. Guretzky, and W.H. Schacht. 2013. Species composition changes and animal performance in response to patch burning and N fertilization on degraded warm season pasture. Society for Range Management 66<sup>th</sup> Annual Meeting, Technical Training, and Trade Show, Oklahoma City, OK. 2-8 Feb. 2013
- 20. Wingeyer, A.B., J. Guretzky, M. Mamo, W. Schacht, and J. Volesky. 2012. Spatial variability of soil carbon stocks in relation to grazing management and soil properties. ASA-CSSA-SSSA International Annual Meetings, Cincinnati, OH. 21-24 Oct. 2012.

- Guretzky, J.A., T.J. Klopfenstein, and W.H. Schacht. 2012. Litter accumulation and decomposition in smooth bromegrass pastures. Society of Range Management 65<sup>th</sup> Annual Meeting Abstract. Spokane, WA. 29 Jan. – 3 Feb. 2012.
- Snell, L., J. Guretzky, V. Jin, R. Drijber, and M. Mamo. 2012. Nitrous oxide emissions from smooth bromegrass pasture under nitrogen fertilizer and bovine urine application in eastern Nebraska. Society of Range Management 65<sup>th</sup> Annual Meeting Abstract. Spokane, WA. 29 Jan. – 3 Feb. 2012.
- 23. Snell, L., J. Guretzky, V. Jin, R. Drijber, and M. Mamo. 2011. Nitrous oxide emissions from smooth bromegrass pasture under nitrogen fertilizer and bovine urine application in eastern Nebraska. Nebraska Section of the Society of Range Management Annual Meeting Abstract, Sidney, Nebraska. 4-6 Oct. 2011.
- 24. R. Reuter, J.T. Biermacher, T. Butler, J. Rogers, M. Kering, and J. Guretzky. Potential of legumes as substitutes for nitrogen fertilizer in summer stocker grazing systems. 4<sup>th</sup> Grazing Livestock Nutrition Conference. July 9-10, 2010. Estes Park, CO.
- 25. Kering, M., J.T. Biermacher, R. Reuter, T. Butler, J.D. Springer, J.K. Rogers, J. Blanton, Jr., J.H. Bouton, and J.A. Guretzky. Economic Potential of Substituting Legumes for Synthetic Nitrogen in Warm Season Perennial Grasses used for Stocker Cattle Grazing. Selected paper for presentation at the Southern Agricultural Economics Association Annual Meeting, Orlando, FL, Feb. 6-10, 2010.
- 26. Mosali, J., J.A. Guretzky, J. Biermacher, and K. Desta. Nitrogen fertilization timing effect on sweet sorghum for ethanol production, juice, and bagasse quality. ASA-CSSA-SSSA 2009 International Annual Meetings, Pittsburgh, PA, 1-5 Nov 2009.
- Mosali, J., S. Norton, E. Funderburg, J. Guretzky, and J. Blanton. Forage yield and nutritive value of warm season perennial introduced grass cultivars under different nitrogen rates. ASA-CSSA-SSSA 2009 International Annual Meetings, Pittsburgh, PA, 1-5 Nov 2009.
- Guretzky, J.A., R.R. Reuter, J.T. Biermacher, J. Springer, T. Butler, H. Aljoe, J. Rogers, and B. Cook. Economic potential of stocker cattle grazing legume-interseeded bermudagrass. ASA-CSSA-SSSA 2009 International Annual Meetings, Pittsburgh, PA, 1-5 Nov 2009.
- 29. Kering, M., J.T. Biermacher, B.J. Cook, and J.A. Guretzky. Switchgrass for forage and bioenergy: effects of nitrogen rate and harvest system. ASA-CSSA-SSSA 2009 International Annual Meetings, Pittsburgh, PA, 1-5 Nov 2009.
- Guretzky, J.A., R.R. Reuter, J.T. Biermacher, J. Springer, T. Butler, H. Aljoe, J. Rogers, and B. Cook. Utilization of switchgrass in a dual purpose stocker cattle and bioenergy system. 2009 Joint Annual Meeting ADSA-CSAS-ASAS. Montreal, Quebec, Canada, 12-16 July. 2009.
- Guretzky, J.A., R.R. Reuter, J.T. Biermacher, J. Springer, T. Butler, H. Aljoe, J. Rogers, and B. Cook. Economic potential of stocker cattle grazing legume-interseeded bermudagrass. 2009 Joint Annual Meeting ADSA-CSAS-ASAS. Montreal, Quebec, Canada, 12-16 July. 2009.
- 32. Guretzky, J.A., J.T. Biermacher, E. Funderburg, J. Mosali, J. Ball, and S. Norton. Forage yield stability of fertilized bermudagrass in the Great Plains. ASA-CSSA-SSSA International Annual Meetings, Houston, TX, 5-9 Oct. 2008.

- Butler, T, C. Huo, and J. Guretzky. Effects of planting date, seeding rate, and row spacing on lowland switchgrass establishment. ASA-CSSA-SSSA International Annual Meetings, Houston, TX, 5-9 Oct. 2008.
- 34. M.C. Saha, J.L. Baker, J. Black, J.A. Guretzky, A.A. Hopkins, and J.H. Bouton. Forage wheat cultivar development for the southern Great Plains. ASA-CSSA-SSSA International Annual Meetings, Houston, TX, 5-9 Oct. 2008.
- 35. Guretzky, J.A., B.J. Cook, J.T. Biermacher, R.R. Reuter, J. Mosali and M. Kering. Utilization and value of switchgrass in a dual purpose stocker cattle and bioenergy system. 2008 Association for the Advancement of Industrial Crops 20<sup>th</sup> Annual Meeting. College Station, TX, 7-11 Sep. 2008.
- Guretzky, J.A., T. Butler, and M. Mattox. Forage potential of temperate legumes with perennial grasses in the southern Plains. Texoma Pasture Conference, Ardmore, OK, 19 July 2008.
- Guretzky, J.A., T. Butler, M. Mattox, and C. Glidewell. Forage potential of temperate legumes with perennial grasses in the southern Plains. Joint Meeting of the Society for Range Management and the American Forage and Grassland Council, Louisville, KY, 28-31 Jan. 2008.
- Guretzky, J.A., T. Butler, and M. Mattox. Forage potential of temperate legumes with perennial grasses in the southern Plains. ASA-CSSA-SSSA International Annual Meetings, New Orleans, LA, 4-8 Nov. 2007.
- 39. Guretzky, J.A., J.B. Ball, and B.C. Cook. Nitrogen fertilization and weather influence winter yield and nutritive value of stockpiled bermudagrass. ADSA-PSA-AMPA-ASAS Joint Annual Convention. San Antonio, TX. 8-12 July 2007.
- 40. Guretzky, J.A. and J.L. Baker. Dry weather limited 2006 forage yields of small grains in southern Oklahoma. Published in American Forage and Grasslands Council Annual Conference Proceedings. Joint AFGC and NEBCSA Conference in State College, PA, 24-26 June 2007.
- 41. Guretzky, J.A., J.S. Fehmi, and A.B. Anderson. Military vehicle training, grazing, and burning effects on grassland species diversity. ASA-CSSA-SSSA International Annual Meetings, Indianapolis, IN, 12-16 Nov. 2006.
- 42. Guretzky, J.A., J.S. Fehmi, and A.B. Anderson. Grazing and military vehicle effects on grassland soils and vegetation" ASA-CSSA-SSSA International Annual Meetings. Indianapolis, IN, 12-16 Nov 2006.
- 43. Guretzky, J.A. Life history traits of the threatened, purple amole (Chlorogalum purpureum var. purpureum), Fort Hunter Liggett, California. ASA-CSSA-SSSA International Annual Meetings, Salt Lake City, UT, Nov. 2005.
- 44. Guretzky, J.A., J.S. Fehmi, and A.B. Anderson. Spatial extent of cattle grazing and tracked vehicle training disturbances on U.S. Army lands. ASA-CSSA-SSSA International Annual Meetings, Seattle, WA, Nov. 2004.
- 45. Guretzky, J.A., J.S. Fehmi, and A.B. Anderson. Grazing, army training, and the carrying capacity of military lands. ASA-CSSA-SSSA International Annual Meetings, Denver, CO, Nov. 2003.
- 46. Guretzky, J.A., K.J. Moore, E.C. Brummer, and M.H. Wiedenhoeft. Multi-scale sampling of plant diversity in pastures that vary in grazing management and landscape position. Proceedings of the American Forage and Grassland Council. 11:80-84. Annual Meeting of the American Forage and Grassland Council. July 2002.

- 47. Barker, D.J., K.J. Moore, and J.A. Guretzky. Spatial variation in species richness under contrasting topographies and grazing regimes. Proceedings of the American Forage and Grassland Council. 11:222-226. Annual Meeting of the American Forage and Grassland Council. July 2002.
- 48. Guretzky, J.A. and K.J. Moore. Spatial analysis of plant diversity in pastures using GIS and GPS technologies. ASA-CSSA-SSSA International Annual Meetings, Charlotte, NC, Nov. 2001.
- 49. Guretzky, J.A. and K.J. Moore. Seedbank recruitment of legumes from pastures varying in landscape position and grazing management. ASA-CSSA-SSSA International Annual Meetings, Minneapolis, MN, Nov. 2000.
- Guretzky, J.A. and K.J. Moore. Germination and survival of legumes interseeded across varying landscapes. ASA-CSSA-SSSA International Annual Meetings, Salt Lake City, UT, Nov. 1999.
- Ayers, J.F., D.C. Gosselin, J.A. Guretzky, and S. Drda. 1996. An analysis of highcapacity wells as sampling mechanisms. Geological Society of America Abstracts. V. 27. No.6. A101.
- Gosselin D.C., J.F. Ayers, and J.A. Guretzky. 1995. Evaluation of irrigation wells as sampling mechanisms. Clean Water-Clean Environment-21<sup>st</sup> Century. Proceedings. Kansas City, Missouri. American Society of Agricultural Engineers. P. 113-116.

## Invited presentations and seminars

- 1. Mason, S. and J.A. Guretzky. "Agronomic Plant Production Systems Learning in Our Teaching Program" Brown-Bag Session on Life Sciences Curriculum, Department of Agronomy and Horticulture, Univ. of Nebraska-Lincoln, 21 Apr. 2011.
- Biermacher, J.T., M. Haque, M.K. Kering, and J.A. Guretzky. "Economically Sustainable Harvest System and Nutrient Management Strategy for Producing Switchgrass Biomass in the Noble Foundation Service Region." Research Paper Presented to Noble Foundation Faculty, Staff, Senior Management, and Non-Resident Fellows, Ardmore, Oklahoma, March 30, 2011.
- 3. Biermacher, J.T., M. Haque, M.K. Kering, and J.A. Guretzky. "Economically Sustainable Harvest System and Nutrient Management Strategy for Producing Switchgrass Biomass in the Southern Great Plains." Invited presentation given to senior research staff and management of Ceres, Inc., College Station, Texas, March 9, 2011.
- 4. Guretzky, J.A., T.J. Klopfenstein, and W.H. Schacht. "Ethanol Co-Product Utilization and Fertilization Effects on Carbon and Nitrogen Cycling in Pastures." Presentation given to students and faculty in Range and Forage Sciences, Univ. of Nebraska-Lincoln, 24 Jan. 2011.
- 5. Guretzky, J.A., T.J. Klopfenstein, and W.H. Schacht. "Ethanol Co-Product Utilization and Fertilization Effects on Carbon and Nitrogen Cycling in Pastures." Spring Seminar Series, Dept. of Agronomy and Horticulture, Univ. of Nebraska-Lincoln, 21 Jan. 2011.
- Guretzky, J.A., J.T. Biermacher, J.S. Mosali, J.R. Blanton, Jr., R. Reuter, and B.J. Cook. "Utilization of Switchgrass in Dual-Purpose Forage and Bioenergy Systems Ethanol Co-Product Utilization and Fertilization Effects on Carbon and Nitrogen Cycling in Pastures." Presentation to students in Agronomy and Range 240. Univ. of Nebraska-Lincoln, 7 Dec. 2009.

- 7. Guretzky, J.A. and K.J. Moore. "Distribution of legumes and plant diversity in pastures varying in landscape position and grazing management." Center for Grassland Studies Fall Seminar Series, Univ. of Nebraska-Lincoln, 28 Sept. 2009.
- Guretzky, J.A. "Enhancing Understanding of Grasslands Ecology and Management." Presentation to students in Plant Sciences 131. Univ. of Nebraska-Lincoln, 18 Sept. 2009.
- 9. Guretzky, J.A. "Cultivating Passion and Fostering Learning of Grasslands Ecology and Management." Teaching Seminar, Dept. of Agronomy and Horticulture, Univ. of Nebraska-Lincoln, 21 Apr. 2009.
- Guretzky, J.A. "Management of Switchgrass for Forage and Bioenergy: Fertilizer, Harvest, and Grazing Effects." Research Seminar, Dept. of Agronomy and Horticulture, Univ. of Nebraska-Lincoln, 22 Apr. 2009.
- 11. Guretzky, J.A. "Establishment and Management of Switchgrass as a Forage and Bioenergy Crop" East Texas Forage Conference, Emory, TX, 11 Feb. 2009.
- 12. Guretzky, J.A. "Developing options for livestock producers with forage and grazing lands." Research Seminar, Div. of Plant and Soil Sci., West Virginia Univ., May 2006
- 13. Guretzky, J.A. "Developing options for farmers and ranchers with improved forages and native grasslands." Seminar, Samuel Roberts Noble Foundation, Ardmore, OK. May 2006.
- 14. Guretzky, J.A. "Enhancing knowledge of grasslands research with site-specific research." Seminar, Dept. of Plant and Soil Environ. Sci., Virginia Tech Univ., April 2006.
- 15. Guretzky, J.A. "Enhancing knowledge of grasslands research with site-specific research." Seminar, Dow AgroSciences. Indianapolis, IN. April 2006.
- 16. Guretzky, J.A. "Site-specific research for forage and grazingland systems." Research Seminar, Dept. of Agronomy, Univ. of Florida, March 2006.
- Guretzky, J.A. "Topography and Grazing Interactions on Legumes and Plant Diversity in Pastures." Research Seminar, Dept. of Plant and Soil Sciences, Univ. of Kentucky, Oct. 2005.
- Guretzky, J.A. "Grassland management and the function of subhumid prairie ecosystems." Environmental Sciences Seminar, Haskell Indian Nations University, Lawrence, KS, Sept. 14, 2005.
- 19. Guretzky, J.A. and K.J. Moore. "Multi-scale sampling of plant diversity in pastures varying in landscape position and grazing management." Crop Production and Physiology Seminar. Dept. of Agronomy, Iowa State Univ., Ames, Iowa. Oct. 29, 2002
- Guretzky, J.A. and K.J. Moore. "Spatial analysis of plant diversity in pastures using GIS and GPS technologies." Crop Production and Physiology Seminar. Dept. of Agronomy, Iowa State Univ., Nov. 6, 2001.
- Guretzky, J.A. and K.J. Moore. "Emergence and survival of legumes interseeded across varying landscapes." Crop Production and Physiology Seminar. Dept of Agronomy, Iowa State Univ., Nov. 9, 1999.

## **Other presentations**

1. Establishment and Management of Switchgrass as a Forage and Bioenergy Crop, Samuel Roberts Noble Foundation, Ardmore, OK, Presented 11 times, 2006-2009.

- 2. Burning of Cross Timbers: Effects on Vegetation, Wildlife Habitat, Stocker Cattle Production, and Economics, Samuel Roberts Noble Foundation, Ardmore, OK, Presented 6 times, 2008.
- 3. Yield and Quality of Temperate Forage Legumes with Perennial Grasses in the Southern Plains. Samuel Roberts Noble Foundation, Ardmore, OK, Presented 3 times, 2008.
- 4. Small Grains and Annual Ryegrass Forage Variety Testing. Samuel Roberts Noble Foundation, Ardmore, OK, Presented 4 times, 2007-2009.

## Reports

- 1. Guretzky, J.A., M. Saha, J. Baker, and S. Norton. 2008. Forage yields from 2006-2007 small grains variety trial. The Samuel Roberts Noble Foundation, Inc. NF-FO-08-02.
- 2. Guretzky, J.A. and S. Norton. 2008. Forage yields from 2006-2007 annual ryegrass variety trial. The Samuel Roberts Noble Foundation, Inc. NF-FO-08-01.
- 3. Guretzky, J.A. 2007. Forage yields from 2006-2007 small grains variety trial. The Samuel Roberts Noble Foundation, Inc. NF-FO-07-02.
- 4. Guretzky, J.A. 2007. Forage yields from 2006-2007 annual ryegrass variety trial. The Samuel Roberts Noble Foundation, Inc. NF-FO-07-01.
- Guretzky, J.A. 2006. Drought Affects '05-06' Variety Trials. Noble Foundation Ag News & Views. 24: November.
- 6. Guretzky, J.A., J.S. Fehmi, and A.B. Anderson. 2005. Cattle grazing and tracked vehicle training on central and southwest U.S. Army lands: potential consequences for grassland ecosystems. ERDC/CERL TR-05-33.
- 7. Guretzky, J.A., E.R. Clark, and D. Woodbury. 2005. Life history traits of the threatened purple amole (*Chlorogalum purpureum var. purpureum*), Fort Hunter Liggett, California. ERDC/CERL TR-05-32.
- 8. Howard, H.R., J.A. Guretzky, B.S. Koch, S.N. McDowell, S.D. Warren, and G.L. Howard. 2004. Sources of plant materials for land rehabilitation. ERDC/CERL SR-04-34.
- 9. Howard, H.R., S.N. McDowell, A. Breon, J.A. Guretzky, and B.R. Tadlock. 2004. Land rehabilitation and maintenance equipment sources: volume II-sources by state. ERDC/CERL SR-04-35.
- 10. Howard, H.R., S.N. McDowell, A. Breon, J.A. Guretzky, and B.R. Tadlock. 2004. Land rehabilitation and maintenance equipment sources: volume I-source lists by installation and national vendors. ERDC/CERL SR-04-35.
- 11. Guretzky, J.A. and K.J. Moore. 2001. Botanical composition of management zones in pastures. Annual Progress Reports, Rhodes Research and Demonstration Farm, Iowa State University.
- 12. Guretzky, J.A. and K.J. Moore. 2000. Spatial analysis of species diversity in pastures using GIS and GPS technologies. Annual Progress Reports, Rhodes Research and Demonstration Farm, Iowa State University.
- 13. Guretzky, J.A., K.J. Moore, A.D. Knapp, and E.C. Brummer. 1999. Emergence and survival of three interseeded legumes across varying landscapes. Annual Progress Reports, Rhodes Research and Demonstration Farm, Iowa State University.
- 14. Guretzky, J.A., K.J. Moore, A.D. Knapp, and E.C. Brummer. 1998. Emergence and survival of three interseeded legumes across varying landscapes. Annual Progress Reports, Rhodes Research and Demonstration Farm, Iowa State University.

#### Newsletters

- 1. Guretzky, J. 2009. Grazing lands and soil carbon storage. Noble Foundation Ag News & Views. 27. June.
- 2. Guretzky, J.A. 2008. Shaping the Cross-Timbers with fire and grazing. Noble Foundation. Ag News & Views. 26: December.
- 3. Guretzky, J.A. and T.J. Butler. 2008. Cool-season legumes for southern pastures. Noble Foundation. Ag News & Views. 26: July.
- 4. Biermacher, J, Cook, B., & Guretzky, J. 2008. Establishing switchgrass for grazing and energy. Midwest Cattleman, April 24, 9-10.
- 5. Biermacher, J.T., B.J Cook, and J.A. Guretzky. 2008. Establishing switchgrass for grazing and bioenergy. Noble Foundation. Ag News & Views. 26: April.
- 6. Guretzky, J.A. 2008. Alternative perennial grasses for bioenergy. Noble Foundation. Ag News & Views. 26: February.
- 7. Guretzky, J.A. 2007. Finding Value in Switchgrass Today with Cattle. Noble Foundation Ag News & Views. 25.
- 8. Guretzky, J.A. 2007. Switchgrass Establishment Requires Patience. Noble Foundation Ag News & Views. 25.

#### Websites

D. Redfearn, C. Dunn, F. Benne, L. Johnson, B. Anderson, M. Stephenson, J. Volesky, J. Guretzky, W. Schacht, D. Twidwell, J. Stubbendieck, and R. Mitchell. 2017. Range, Pasture, and Forages Website. <u>http://agronomy.unl.edu/range-pasture-forages</u>

# TEACHING PORTFOLIO (0.40 FTE)

<u>Courses taught</u> <u>Timeline</u>	Course	Semesters	Students	Institution/Organization
2020 - Present	Range Management and Improvement	Spring	15-20	Univ. of Nebraska-Lincoln
2018 – Present	Forage Quality	Summer (even- numbered years)	10-15	Univ. of Nebraska-Lincoln
2015 – Present	Forage Crop and Pasture Management	Fall and spring	30-70	Univ. of Nebraska-Lincoln
2014 – Present	Forage Evaluation	Spring (even- numbered years)	15-20	Univ. of Nebraska-Lincoln
2010 - 2014	Forage Crop and Range Management	Fall	60-100	Univ. of Nebraska-Lincoln

#### Other teaching

2010 – 2020 Range Plant Morphology and Physiology

- Taught at the Nebraska Range Shortcourse
- Week-long course consisting of classroom and field-based activities
- Held during summer of even-numbered years
- Attended by 20-30 range management professionals
- Supported by the Univ. of Nebraska-Lincoln and Chadron State Univ.
- 2010 2020 Plant Growth and Physiology

- Taught at the Nebraska Range Youth Camp
- Week-long course consisting of classroom and field-based activities
- Held annually during summer
- Attended by 30-50 high school students, freshmen-seniors
- Hosted by the Nebraska Section of the Society for Range Management

2000 Field Plot Techniques

- Teaching assistant, Iowa State University, Ames, IA
- Course covered principals of field plot experimentation and analysis with SAS in classroom and computer laboratory sessions
- Graded daily assignments on analysis of agronomic experiments
- Delivered lectures on topics of restrictions on randomization and nested designs

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Year	Undergraduate	UCARE	M.S. advising	M.S. co- advising
2019	7	1	2	1
2018	17	2	3	1
2017	19	4	4	2
2016	17	4	2	3
2015				
2014	15	0	2	1
2013	14	0	2	1
2012	4	1	1	0
2011	3	0	1	0
2010	1	0	0	0

#### SERVICE (0.02 FTE)

## University of Nebraska-Lincoln

- Safety Committee, Dept. of Agronomy and Horticulture, 2019-2020
- Seminar Committee, Dept. of Agronomy and Horticulture, 2019-2020
- Curriculum Coordinating Committee, Agronomy and Horticulture, 2009-2010
- Seminar Committee, Agronomy and Horticulture, 2009-2010

#### **Professional Societies**

<u>Timeline</u> <u>Position</u>

Institution/Organization

2019 - 2020	Paper of the Year Committee	Agronomy Journal Editorial Board American Society of Agronomy
2015 - 2018	Communications Editor	Agronomy Journal Editorial Board American Society of Agronomy
2013 - 2018	Associate Editor	Agronomy Journal Editorial Board American Society of Agronomy
2018	Past Chair	Division C06 Forage and Grazinglands Crop Science Society of America
2017	Chair	Division C06 Forage and Grazinglands Crop Science Society of America
2016	Chair-Elect	Division C06 Forage and Grazinglands Crop Science Society of America
2012 - 2014	Technical Editor	Forage and Grazinglands Editorial Board Crop Science Society of America
2007 - 2010	Associate Editor	Forage and Grazinglands Editorial Board Crop Science Society of America
2009	Peer-Review Panelist	Biomass Program Feedstocks Platform U.S. Dept. of Energy
2008	G.O. Mott Scholarship Committee, Chair	Crop Science Society of America
2007	Communications Task Force	American Society of Agronomy
2006 - 2007	G.O. Mott Scholarship Committee	Crop Science Society of America
2004 - 2005	Young Crop Scientist Award Committee	Crop Science Society of America

## HONORS AND AWARDS

- Certificate of Recognition for Contributions to Students, Awareded by the UNL Teaching Council and UNL Parents Association, Jan. 8, 2018
- Promotion and Tenure, Dept. of Agronomy and Horticulture, University of Nebraska-Lincoln, July 1, 2015

Outstanding Associate Editor, Agronomy Journal, American Society of Agronomy, 2014

- 1<sup>st</sup> place in Emerging Scientist Competition, American Forage and Grassland Council Annual Conference, Bloomington, MN, July 15, 2002.
- Gamma Sigma Delta, The Honor Society of Agriculture, Iowa State University, April 8, 2002.
- G.O. Mott Outstanding Graduate Student Award in Crop Science, Dept. of Agronomy, Iowa State Univ. 2000-2001

Premium for Academic Excellence Award, Iowa State Univ. 1998.

Best Presentation Award - Howard Hughes Medical Institute Undergraduate Research Symposium. Univ. of Nebraska. Oct. 28, 1995.

Howard Hughes Medical Institute Scholarship, Summer Undergraduate Research Experiences Program, Univ. of Nebraska, May 1995.