

Keenan L. Amundsen

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Professional Experience

- Professor, Turfgrass Genetics, University of Nebraska-Lincoln, 2022-present.
- Faculty Fellow, Graduate Education in the College of Agricultural Sciences and Natural Resources, University of Nebraska-Lincoln, 2023-2024
- Associate Professor, Turfgrass Genetics, University of Nebraska-Lincoln, 2017-2022.
- Assistant Professor, Turfgrass Genetics, University of Nebraska-Lincoln, 2011-2017.
- Postdoctoral Research Plant Molecular Biologist, USDA-ARS, Beltsville, MD, 2009-2011.
- Plant Biology Research Technician, USDA-ARS, Washington, DC, 2003-2009.
- Graduate Research Assistant, Michigan State University, 1999-2003.
- Undergraduate Teaching Assistant for Pesticide and Fertilizer Application Technology, Michigan State University, 1997-1998
- Undergraduate Instructor for Turfgrass Mathematics, Michigan State University, 1997-1998

Education

- Ph.D. Bioinformatics and Computational Biology, George Mason Univ., Manassas, VA, 2010
- M.S. Crop and Soil Sciences, Michigan State Univ., East Lansing, MI, 2003
- B.S. Mathematics, Alma College, Alma, MI, 1998
- B.S. Crop and Soil Sciences, Michigan State Univ., East Lansing, MI, 1998

Postgraduate Training

- NCLUDE: Inside Graduate Admissions, Univ. of Nebraska, 2023
- Faculty Leadership in Academia: From Inspiration to Reality (FLAIR), Univ. of Nebraska, 2020
- StrengthsFinder 2.0 strengths: Learner, Responsibility, Ideation, Analytical, and Intellection
- Summer Institute for Online Teaching and Blackboard Certification, Univ. of Nebraska, 2015
- Research Development Fellowship Program, University of Nebraska, 2011-2012
- Postdoctoral Research Plant Molecular Biologist, Beltsville, MD 2009-2011
- Workplace Safety Training, OESHA certified Career Duty Safety Officer, USDA, 2004
- Bioinformatics Workshop, Berkeley, CA 2004

Patents and Cultivar Releases

1. Shearman, R.C., K.L. Amundsen, L.A. Wit and B.G. Abeyo. 2014. 'Sundancer' (NE-BFG-07-03) Buffalograss [*Buchloë dactyloides* (Nutt.) Engelm. syn. *Bouteloua dactyloides* (Nutt.) Columbus]
2. Andrews, D., J. Rajewski, K.L. Amundsen, C. Caha. 2017. 'Copper Prince' Pearl Millet (*Pennisetum glaucum*)

Refereed publications (<https://orcid.org/0000-0003-0004-6423>)

1. Alas, K, B Johnson, C Booth, **K Amundsen**. 2024. Characterizing hop genotypes for adaptation to Nebraska. HortScience (submitted).

2. **Amundsen, K**, C Thompson, W Kreuser, R Gaussoin. 2024. Management costs influence golfer perceptions of turfgrass quality and playability. *International Turfgrass Society Research Journal* (in press).
3. McConaughy, S, **K Amundsen**, D Hyten. 2024. Effects of demographic history on recombination hotspots in soybean. *The Plant Journal* <https://doi.org/10.1111/tpj.16814>
4. McConaughy, S, **K Amundsen**, Q Song, V Pantalone, D Hyten. 2023. Recombination hotspots in soybean. *Genes, Genomes, Genetics*. DOI: <https://doi.org/10.1093/g3journal/jkad075>
5. Park SY, MJ Jeon, YH Joung, **K Amundsen**, G Burchi, A Porcelli, MS Roh. 2023. Genetic variations of *Narcissus tazetta* and selected *Narcissus* cultivars based on the sequence analysis of nrITS and trnL-IS-trnF regions. *Genetic Resources and Crop Evolution*. DOI: <https://doi.org/10.1007/s10722-022-01521-4>
6. Driskill M, K Pardee, KE Hummer, JD Zurn, **K Amundsen**, A Wiles, C Wiedow, J Patzak, J Henning, N Bassil. 2022. Two fingerprinting sets for *Humulus lupulus* based on KASP and microsatellite markers. *PLoS one* 17 (4), e0257746
7. Haichuan, W, B Campbell, M Happ, S McConaughy, A Lorenz, **K Amundsen**, Q Song, V Pantalone, D Hyten. 2022. Development of Molecular Inversion Probes for Soybean Progeny Genomic Selection Genotyping. *The Plant Genome*. <https://doi.org/10.1002/tpg2.20270>
8. Marshall, C, SE Warnke, **K Amundsen**. 2022. Simple sequence repeat marker development and diversity analysis in buffalograss. *Crop Science*. 00, 1-10. DOI:<https://doi.org/10.1002/csc2.20725>
9. **Amundsen K**, SE Warnke, Bushman BS, MD Robbins, R Martin, K Harris-Shultz. 2021. Colonial bentgrass transcript expression differences compared to creeping bentgrass in response to water deficit stress. *Crop Science* DOI:<https://doi.org/10.1002/csc2.20437>
10. Bushman BS, MD Robbins, SE Warnke, R Martin, K Harris-Shultz, **K Amundsen**. 2021. Gene expression differences for drought stress response in cool-season turfgrasses. *Int. Turfgrass Soc. Research Journal* DOI: <https://doi.org/10.1002/its2.25>
11. Canella Vieira B, J Luck, **K Amundsen**, T Gaines, R Werle, G Kruger. 2020. Herbicide drift exposure leads to reduced herbicide sensitivity in *Amaranthus* spp. *Scientific Reports* 10:2146
12. Koch KG, NA Palmer NA, T Donze-Reiner, ED Scully, J Seravalli, **K Amundsen**, P Twigg, J Louis, JD Bradshaw, T Heng-Moss, G Sarath. 2020. Aphid-responsive defense networks in hybrid switchgrass. *Frontiers in Plant Science* doi:10.3389/fpls.2020.01145
13. Warnke S, CS Thamina, **K Amundsen**. 2020. Genetic variation of the epibiotic fungus *Atkinsonella hypoxylon* (Peck) Diehl., (Clavicipitaceae) infecting *Danthonia spicata*(L.) Beauv. *Crop Science* DOI:10.1002/csc2.20119
14. Canella Vieira B, J Luck, **K Amundsen**, T Gaines, Todd; R Werle, G Kruger. 2019. Response of *Amaranthus* spp. following exposure to sublethal herbicide rates via spray particle drift. *Plos One* 14(7):e0220014.<https://doi.org/10.1371/journal.pone.0220014>
15. Park SY, MJ Jeon, SH Ma, E Wahlsteen, **K Amundsen**, JH Kim, JK Suh, JS Chang, YH Joung. 2019. Phylogeny and genetic variation in the genus *Eranthis* using nrITS and cpIS single nucleotide polymorphisms. *Horticulture, Environment, and Biotechnology*. <https://doi.org/10.1007/s13580-018-0113-0>
16. Chahal P.S., S. Irmak, T. Gaines, **K. Amundsen**, M. Jugulam, P. Jha, I.S. Travlos, A.J. Jhala. 2018. Control of photosystem (PS) II- and 4-hydroxyphenylpyruvate dioxygenase (HPPD)-inhibitor-resistant Palmer amaranth (*Amaranthus palmeri* S. Wats.) in conventional corn. *Weed Technology* DOI:10.1017/wet.2017.111

17. Koch KG, T Donze-Reiner, LM Baird, J Louis, **K Amundsen**, G Sarath, JD Bradshaw. 2018. Evaluation of greenbug and yellow sugarcane aphid feeding behavior on resistant and susceptible switchgrass cultivars. *BioEnergy Research*. 11(2):480-490.
18. Oliveira MC, Gaines TA, Patterson EP, Jhala AJ, Irmak S, **Amundsen K**, Knezevic SZ. 2018. Interspecific and intraspecific metabolism-based herbicide resistance transfer in dioecious weedy *Amaranthus*. *Plant Journal* 96(5):1051-1063. doi: 10.1111/tpj.14089
19. Thammina, C.S., **K. Amundsen**, S.B. Bushman, M. Kramer, S.E. Warnke. 2018. Genetic Diversity of *Danthonia spicata* (L.) Beauv. Based on Genomic Simple Sequence Repeat Markers. *Genetics Resources and Crop Evolution* 65:1059. DOI: 10.1007/s10722-017-0596-z.
20. Waters, B., **K. Amundsen**, G. Graef. 2018. Gene expression profiling of iron deficiency chlorosis sensitive and tolerant soybean indicates key roles for phenylpropanoids under alkalinity stress. *Frontiers in Plant Science*. 9:10. DOI: 10.3389/fpls.2018.00010
21. **Amundsen, K.L.**, L. Li, R. Shearman, R. Gaussoin. 2017. Addressing misperceptions regarding buffalograss tolerance to sandy soils, traffic, and shade. *International Turfgrass Research Journal* 13:1-6 doi: 10.2134/itsrj2016.05.0347
22. **Amundsen, K.**, Sarath, G., Donze-Reiner, T., eds. 2017. Genomic approaches for improvement of understudied grasses. Lausanne: Frontiers Media. doi: 10.3389/978-2-88945-242-2.
23. Donze-Reiner, T., Palmer, N.A., Scully, E.D., Prochaska, T.J., Koch, K.G., Heng-Moss, T, Bradshaw, J., Twigg, P., **Amundsen, K.**, Sattler, S.E., Sarath, G. 2017. Transcriptional analysis of defense mechanisms in upland tetraploid switchgrass to greenbugs. *BMC Plant Biology* 17(1):46. doi: 10.1186/s12870-017-0998-2.
24. Warnke S., C. Thammina, **K. Amundsen**, P. Miljanic, H. Hershman. 2017. High resolution melt analysis of simple sequence repeats for bentgrass species differentiation. *Crop Science* doi:10.2135/cropsci2016.10.0838.
25. Amaradasa, B.S., and **K. Amundsen**. 2016. Characterization of defense-related genes of buffalograss challenged with the leaf spot pathogen *Curvularia inaequalis*. *Frontiers in Plant Science* DOI: 10.3389/fpls.2016.00715.
26. Bushman, S., **K. Amundsen**, S. Warnke, J. Robins, P. Johnson. 2016. Transcriptome Profiling of Kentucky bluegrass (*Poa pratensis* L.) Accessions in Response to Salt Stress. *BMC Genomics* 17:48. DOI: 10.1186/s12864-016-2379-x (Bushman and Amundsen are co-first authors).
27. Kreuser, K, G. Sarath, W. Kreuser, **K. Amundsen**. 2016. Potassium nitrate effect on buffalograss bur dormancy. *HortScience* 51(12):1566-72. doi: 10.21273/HORTSCI11126-16
28. Li, L., M.D. Sousek, **K.L. Amundsen**, Z.J. Reicher. 2016. Cultivar, seeding rate, or date has little effect on establishment of dormant seeded buffalograss. *HortScience* 51(6):750-53.
29. Li, L., M.D. Sousek, **K.L. Amundsen**, Z.J. Reicher. 2016. Seeding date and bur treatment affect establishment success of dormant-seeded buffalograss. *Agronomy Journal* 109:1-6. doi:10.2134/agronj2016.03.0164.
30. Oliveira, M., A. Jhala, T. Gaines, S. Irmak, **K. Amundsen**, J. Scott, S. Knezevic. 2016. Confirmation and Control of HPPD-Inhibiting Herbicide-Resistant Waterhemp (*Amaranthus tuberculatus*) in Nebraska. *Weed Technology* 31:67-79. DOI: <https://doi.org/10.1017/wet.2016.4>.

31. Amaradasa, B.S., D. Lakshman, **K. Amundsen**. 2015. AFLP fingerprinting for identification of infra-species groups of *Rhizoctonia solani* and *Waitea circinata*. J. Plant Pathol. Microb. 6(3):262. Doi: 10.4172/2157-7471.1000262.
32. Ramm C., A. Wayadande, L. Baird, R. Nandakumar, N. Madayiputhiya, **K. Amundsen**, T. Donze, F. Baxendale, T. Heng-Moss. 2015. Morphology and Proteome Characterization of the Salivary Glands of the Western Chinch Bug, *Blissus occiduus* (Hemiptera: Blissidae). Journal of Economic Entomology doi: 10.1093/jee/tov149.
33. Ramm, C., M. Wachholtz, **K. Amundsen**, T. Donze, T. Heng-Moss, P. Twigg, G. Sarath, and F. Baxendale. 2015. Transcriptional Profiling of Resistant and Susceptible Buffalograsses in Response to *Blissus occiduus* (Hemiptera: Blissidae) Feeding. Journal of Economic Entomology. doi: 10.1093/jee/tov067.
34. Donze, T., B.S. Amaradasa, C. Caha, T. Heng-Moss, **K. Amundsen**. 2015. Molecular differentiation of gender in buffalograss. Crop Science 55(4): 1827-33 doi:10.2135/cropsci2014.07.0478.
35. Amaradasa, B.S., **K. Amundsen**. 2014. First report of *Curvularia inaequalis* and *Bipolaris spicifera* causing leaf blight of buffalograss in Nebraska. Plant Disease 98(2):279.
36. Honig, J.A., C. Kubik, M. Majewski, C. Poulsen, E. Weibel, **K. Amundsen**, S.E. Warnke, W.A. Meyer, S.A. Bonos. 2014. A PCR-based linkage map of *Agrostis stolonifera* and identification of QTL markers for dollar spot resistance. Mol. Gen. Genet. 34:185-203.
37. Amaradasa, B., H. Madrid, J.Z. Groenewald, P.W. Crous, **K. Amundsen**. 2014. *Porocercospora seminalis* gen. et comb. nov., the causal organism of buffalograss false smut. Mycologia 106(1):77-85.
38. Amaradasa, B., D. Lakshman, B. Horvath, **K. Amundsen**. 2014. Development of SCAR markers and UP-PCR cross-hybridization method for specific detection of four major subgroups of *Rhizoctonia* from infected turfgrasses. Mycologia 106(1):163-172.
39. Waters, B.M., S.A. McInturf, **K. Amundsen**. 2014. Transcriptomic and physiological characterization of the fefe mutant of melon (*Cucumis melo*) reveals new aspects of iron-copper crosstalk. New Phytologist DOI: 10.1111/nph.12911.
40. Bushman, B.S., S.E. Warnke, **K.L. Amundsen**, K.M. Combs, P. Johnson. 2013. Molecular markers highlight variation within and among Kentucky bluegrass varieties and accessions. Crop Science. 53(5):2245-2254.
41. Wachholtz, M., T. Heng-Moss, P. Twigg, L. Baird, G. Lu, **K. Amundsen**. 2013. Transcriptome analysis of two buffalograss cultivars. BMC Genomics 14:613.
42. Ramm, C., A. Saathoff, T. Donze, T. Heng-Moss, F. Baxendale, P. Twigg, L. Baird, **K. Amundsen**. 2013. Expression Profiling of Four Defense-Related Buffalograss Transcripts in Response to Chinch Bug (Hemiptera: Blissidae) Feeding. J. Economic Entomology 106(6):2267-2576.
43. **Amundsen, K.**, and S. Warnke. 2012. *Agrostis* species relationships based on trnL-trnF and atpI-atpH intergenic spacer regions. Hort Science 47(1):18-24.
44. Serba, D.D., O. Gulsen, B.G. Abeyo, **K.L. Amundsen**, D.J. Lee, P.S. Baenziger, T.M. Heng-Moss, K.M. Eskridge, and R.C. Shearman. 2012. Turfgrass performance of diploid buffalograss (*Buchloë dactyloides* (Nutt.) Engelm.) half-sib populations. Hort Science 47(2):189-197.
45. **Amundsen, K.**, R. Brown, G. Jung, and S. Warnke. 2012. Evaluation of population structure within diploid *Agrostis* germplasm based on miniature inverted-repeat transposable elements. Crop Science 52:1902-1909.

46. Peterson, K.W., C.J. Wegner, **K.L. Amundsen**, R.E. Gaussoin, W.H. Schacht, G.L. Horst, R.C. Shearman. 2012. Mowing Height and Genotype Influence on Carbohydrate Content of Buffalograss. *Crop Science* 53(3):1153-1160.
47. **Amundsen, K.**, D. Rotter, M. L. Huaijun, J. Messing, G. Jung, F. Belanger, and S. Warnke. 2011. Miniature inverted-repeat transposable element identification and genetic marker development in *Agrostis*. *Crop Science* 51:854-861.
48. **Amundsen, K.** and S. Warnke. 2011. Species relationships in the genus *Agrostis* based on flow cytometry and MITE-display molecular markers. *Crop Science* 51:1224-1231.
49. Dhar, A.K., D.K. Lakshman, **K. Amundsen**, R. Robles-Sikisaka, K.N. Kaizer, S. Roy, K.W. Hasson, and F.C.T. Allnutt. 2010. Characterization of a taura syndrome virus isolate originating from the 2004 Texas epizootic in cultured shrimp. *Archives Virology* 155:315-27.
50. Rotter, D, **K. Amundsen**, S. Bonos, W. Meyer, S. Warnke, and F. Belanger. 2009. Molecular genetic linkage map for allotetraploid colonial bentgrass. *Crop Science* 49:1609-1619.
51. Skinner, J.S., J. von Zitzewitz, P. Szics, L. Marquez-Cedillo, T. Filichkin, **K. Amundsen**, E.J. Stockinger, M.F. Thomashow, T.H.H. Chen, P.M. Hayes. Structural, functional, and phylogenetic characterization of a large *cbf* gene family in barley. *Plant Mol. Bio.* 2005 Nov;59(4):533-551.
52. Jaglo, K.R., S. Kleff, **K. Amundsen**, X. Zhang, V. Haake, J.Z. Zhang, T. Deits, M.F. Thomashow. 2001. Components of the Arabidopsis C-repeat/dehydration-responsive element binding factor cold-response pathway are conserved in *Brassica napus* and other plant species. *Plant Physiol.* Nov;127(3):910-7.

Invited Review Articles

1. Amaradasa, B., T. Donze, G. Sarath, T. Heng-Moss, and **K. Amundsen**. 2014. Characterizing differential gene expression in polyploid grasses lacking a reference transcriptome. *OA Biotechnology* 3(1):1.

Books and chapters

1. **Amundsen, K.**, Sarath, G., Donze-Reiner, T., eds. 2017. *Genomic Approaches for Improvement of Understudied Grasses*. Lausanne: Frontiers Media. doi: 10.3389/978-2-88945-242-2
2. **Amundsen, K.**, S. Warnke. 2013. Bentgrasses and poa. In H. Cai, & T. Yamada (Eds.), *Genetics, genomics and breeding of forage crops* (pp. 130-143) CRC Press.
3. Skinner, J.S., J. von Zitzewitz, L. Marquez-Cedillo, T. Filichkin, P. Szics, **K. Amundsen**, E.J. Stockinger, M.F. Thomashow, T.H.H. Chen, and P.M. Hayes. 2005. Barley contains a large *cbf* gene family associated with quantitative cold tolerance traits. In: T.H.H. Chen, M. Uemura, and S. Fujikawa, (eds.), *Cold Hardiness in Plants: Molecular Genetics, Cell Biology and Physiology*. CAB International, Oxon, UK, pp. 30-52.

Peer-reviewed extension publications

1. Reicher, Z., K. Amundsen, A. Streich, F. Baxendale, L. Giesler. 2012. Tall fescue management calendar. NebGuide G558.
2. Reicher, Z., K. Amundsen, A. Streich, F. Baxendale, L. Giesler. 2012. Kentucky bluegrass management calendar. NebGuide G517.
3. Reicher, Z., K. Amundsen, A. Streich, F. Baxendale, L. Giesler. 2012. Buffalograss management calendar. NebGuide G2178.

Teaching Experience

- PLAS391T: Turfgrass mathematics (distance), Fall 2024-present
- AGRO 420/820: Bioinformatics Applications in Agriculture (hybrid), Fall 2013-present
- Distance Ed: Plant Breeding for Non-Plant Breeders (non-credit), Spring 2013-present
- TLMT 327: Turfgrass Science and Management, Fall/Spring 2012; Fall 2013, Fall 2015-present
- PLAS230: Technical Reporting, Fall 2021-22
- AGRI 271: Intro to Computer Applications in Agriculture, Fall 2014; Spring 2015
- TLMT 227: Introductory Turfgrass Management, Fall 2015-2020
- PGAM/TLMT 229: Turfgrass Management Lab, Fall 2015-2020

Student Advising

- Main advisor or co-advisor, UNL: one Ph.D. student (Kristina Alas, 2026; Michael Morikone, 2023); six M.S. students (Kristina Alas, 2023; Zach Allen, 2013; Jesse Brown, 2013; Luqi Li, 2015; Collin Marshall, 2020; Beth Niebaum, 2023)
- Service on 33 graduate supervisory committees
- Advised 24 undergraduate students
- 14 sponsored undergraduate research projects, including one Senior Honors Thesis project and two UCARE projects

Grant Activity

- Amundsen, K. T. Franz, S. Adams. Terroir of Nebraska grown hops, Nebraska State Dept. Agriculture Specialty Crop Block Grant Program \$48,200
- Amundsen, K. T. Franz. Maximize hop yields by modeling plant growth, , Nebraska State Dept. Agriculture Specialty Crop Block Grant Program \$45,900
- Amundsen, K., Understanding Gender Control in Buffalograss, UNL, \$20,000
- Amundsen, K., Gender specific gene expression conservation across dioecious Chloridoideae, UNL, \$2,000
- Amundsen, K., L. Brilman, W. Kreuser, Low input performance of Highland, heat, and drought tolerant bentgrasses, U. S. Golf Association, \$30,160
- Amundsen, K., Buffalograss Breeding for Golf, U. S. Golf Association, \$30,000 (annually)
- Amundsen, K., K. Kreuser, Break seed dormancy in buffalograss, U. S. Golf Association, \$60,710
- C. Thompson, Amundsen, K., W. Kreuser, Golfer perception of input-limited fairway management in the northcentral U.S., U. S. Golf Association, \$69,020
- Amundsen, K., S. Warnke, W. Kreuser, Pre-breeding for bentgrass germplasm improvement, U. S. Golf Association, \$51,040
- Ferguson, R., A. Lorenz, K. Amundsen, W. Schacht, Ascending Technologies Astec Falcon 8 aerial imagery platform, with sensors, UNL, \$17,500
- Amundsen, K., W. Kreuser, Portable shade frames for turf research, UNL, \$5,694
- W. Kreuser, K. Amundsen, Turfgrass Research Plot Installation on East Campus, UNL, \$14,000
- Elbaum, S. G., Detweiler, C., Ferguson, R., Lorenz, A., Fontaine, J. J., Hillebrecht, C., Waite, M. D., Amundsen, K., Autonomous Aerial Instruments for Socio, Ecological, Engineered, and Agricultural Systems, UNL, \$118,000
- Waters, B., Amundsen, K., IDC Gene Expression, Nebraska Soybean Board, UNL, \$15,950
- Amundsen, K., Developing hops for Nebraska and the Midwest, UNL, \$17,536

- Gaussoin, R. S. Adams, K. Amundsen, C. Fisk, Hops extension & brewer/grower conference, 2016 Nebraska Specialty Crop Block Grant, \$119,320
- Koelsch, R., Bradshaw, J., Glewen, K., Hunt, T., Hygnstrom, S. E., Jackson-Ziems, T., Jhala, A., Kamble, S., Ogg, C. L., Reicher, Z., Sandell, L., Streich, A. M., Wright, R., Amundsen, K., Schild, J., Cortinas, M. R., Doster, A., Vantassel, S., Ferraro, D., NIFA, \$150,000
- Other industry sponsored research, \$225,000 (multiple projects)

Service Summary

Department

- Promotion and Tenure Committee (2022-present; interim chair, 2024)
- Dermot P. Coyne Distinguished Lectureship Selection Committee (2016-present)
- Search Committee Turf Center Farm Manager (Chair, 2015)
- Graduate Committee (2014-2017; Chair, 2019-2023)
- Faculty Advisory Committee (2014-16,2018-2022)
- Peer Annual Evaluation Team (2014-19)
- Teaching Capacity Working Group (2014-2015)
- Agronomy Farm Committee (2013-2016)
- Activities and Entertainment Committee (2014-2015)
- Seminar Committee (Member, 2012-2013; Chair, 2013-2014)
- Coordinated bi-weekly meetings of the turf group (2011-present)

Institute and University

- Head of Statistics Department Search Advisory Committee (2023-24)
- AG-NGINE Graduate Student Recruit Name Exchange Database Institutional Contact (2023-present)
- Forage and Turfgrass Crop Germplasm Variety Release Committee (2013-2015; chair 2016-present)
- Prairie Corridor on Haines Branch Committee (2014-2021)
- Faculty of Life Sciences Executive Committee (2015-2018)
- PGA Golf Management Advisory Committee (2015-present)
- University Faculty Greenhouse Committee (2014-19; Chair 2018-2019)
- Integrated Turfgrass Management Specialist hiring selection committee (2016)
- Poster judge for UNL Plant Breeding Symposium (2016)
- Vegetable Crops, Turf, Ornamental and Woody Plants Variety Release Committee (2013-2016)
- INSPIRE IANR Staff Optimization Focus Group (2015)
- Chair, Turfgrass Extension Specialist hiring selection committee (2013)
- Statistics faculty hiring selection committee member, five positions (2018-19)

Regional and Statewide

- Western Regional Turfgrass Research UNL representative (2011-present)
- Center of Grassland Studies associate (2011-2023) and appointed policy advisor (2015-2023)
- Nebraska Golf Course Superintendents Association member (2011-present)
- Advisory Board, Nebraska Turfgrass Association (2011-present)
- Advisory Board, Nebraska Hop Growers Association (2020-present)

National

- Associate Editor for Frontiers in Plant Science (2015-16); ad hoc reviewer for BMC Genomics, Canadian Journal of Plant Science, Crop Science, Frontiers in Plant Science, Gene, HortScience, International Symposium on Bio- and Medical Informatics and Cybernetics, Molecular Biotechnology, Nature Plants, and The Plant Genome (2011-present)
- Appointed to the C536.1 Crop and Soil Science Association Rapid Response Team (2015-17)
- C05 Turfgrass Science Session Chair (2012)
- Invited organizer for special research topic with Frontiers entitled “Genomic approaches for improvement of understudied grasses”
- AFRI Plant Breeding grant review panelist (2019)
- AFRI pre- and postdoctoral fellowship review panelist (2015, 16)
- National Turfgrass Evaluation Program Bentgrass Trials Advisory Board (2014) and Low-Input Warm-Season Grass Trial (2018)
- Turfgrass Research Workshop (2017,20)

Professional Memberships

- Crop Science Society of America
- Golf Course Superintendent Association of America
- Nebraska Turfgrass Association