**Publications**

Alotaibi, M., Alharbi, B., Al-Shamsi, M., Al-Namazi, A., Qian, Y.L. 2020. Assessing the Response of Five Tree Species Toward Air Pollution. Environmental Science and Pollution Research, 27, 29156-29170.

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

Brosnon, JT, A Chandra, RE Gaussoin, A Kowalewski, B Leinauer, FS Rossi, DJ Soldat, JC Stier, B Unruh. 2020. A justification for continued management of turfgrass during economic contraction. Agricultural and Environmental Letters. 5(1): p. 1-8.

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

**Cheng, Z.** 2021. Management of leaf and sheath spot (mini ring) on hybrid bermudagrass in Hawaii. International Turfgrass Society Research Journal, 2021: 1–4. <https://doi.org/10.1002/its2.66> (short communication)

Dalsgaard, T.O., **A.W. Thoms**, N.E. Christians, I. Mertz, and R. Horton. 2020. Comparison of Shockwave aerification and conventional aerification methods on athletic fields. Agron J. 112:3470-3477. doi:10.10002/agj2.20255

Dickson, K.H., C.M. Straw, **A.W. Thoms**, T.D. Carson, and J.C. Sorochan. 2021. Impact of third generation synthetic turf athletic field age on surface hardness and infill depth spatial variability. Proc. of Institution of Mech. Eng. Part P: J. of Sports Eng. and Tech. doi:10.1177/17543371211002947

E-Book, Co-editor, Genetics and Genomics of Polyploid Plants. Frontiers in Plant Sciences.

Hang, Qu., S. Zhang, J.C. Sorochan, J.T. Weinhandl, **A.W. Thoms**, and K.H. Dickson. 2020. Effects of synthetic turf and shock pad on impact attenuation related biomechanics during drop landing. Sports Biomech. doi:10.1080/14763141.2019.1690570

Isweiri H, Yaling Qian, Davis JG. 2021. Interactive effects of waterlogging and salinity on perennial ryegrass and alkaligrass. Int Turfgrass Soc Res J. 2021:1–10. <https://doi.org/10.1002/its2.60>

Isweiri, H., Qian, Y.L., Davis, J. D. 2021. Comparison of fresh versus effluent water irrigation on soil chemical properties of golf course greens and fairways. International Turfgrass Society Research Journal, 10, https://onlinelibrary.wiley.com/doi/abs/10.1002/its2.42.

Li, L, E Chestnut, M Carlson, W Kreuser, R Gaussoin. 2020. Field evaluation of preemergence activity of plant growth regulators on annual bluegrass. Crop, Forage and Turfgrass Management. 6(1): p. [1-3].

Lindsey, A.J., **A.W. Thoms**, and N.E. Christians. 2020. Kentucky bluegrass and bermudagrass rooting response to humic fertilizers during greenhouse establishment. Agron. J. 112:3396-3401. doi:10.1002/agj2.20199

Lindsey, A.J., **A.W. Thoms**, and N.E. Christians. 2021. Evaluation of humic fertilizers on Kentucky bluegrass subjected to simulated traffic. Agon. 11(4):611. doi:10.3390/agronomy11040611

Lindsey, A.J., **A.W. Thoms**, J. Dancer, and M. Gross. 2021. Evaluation of algae-based fertilizers produced from revolving algal biofilms on Kentucky bluegrass. Agron. 11(7):1288. doi:10.3390/agronomy11071288

Lindsey, A.J., **A.W. Thoms**, M.D. McDaniel, and N.E. Christians. 2021. Plant-available soil nitrogen fluxes and turfgrass quality of Kentucky bluegrass fertilized with humic substances. Crop Sci. *(In Press)*. doi:10.1002/csc2.20592

Lindsey, A.J., **A.W. Thoms**, M.D. McDaniel, and N.E. Christians. 2021. Evaluation of humic fertilizers on a sand-based creeping bentgrass putting green. Crop Sci. *(In Press)*. doi:10.1002/csc2.20577

Lindsey, A.J., **A.W. Thoms**, M.D. McDaniel, and N.E. Christians. 2021. Evaluation of humic fertilizers applied at full and reduced nitrogen rates on Kentucky bluegrass quality and soil health. Agron. 11(395):1-14. doi:10.3390/agronomy/11020395

Lindsey, A.J., J. DeFrank, and **Z. Cheng**. 2020. Bermudagrass suppression and goosegrass control in seashore paspalum turf. Journal of Applied Horticulture, 22(2): 92-96.

Liu Y, Merrick P, Zhang Z, Ji C, Yang B, Fei S. 2018.Targeted mutagenesis in tetraploid switchgrass (*Panicum virgatum* L.) by CRISPR/Cas9. Plant Biotechnology J. doi: 10.1111/pbi.12778

Manandhar, M., J. Li, and **Z. Cheng**. 2020. Survey of entomopathogenic nematodes in various landscape systems on Oahu, Hawaii, and their pathogenicity against coconut rhinoceros beetle (Coleoptera: Scarabaeidae).Nematropica, 50(1): 36-44.

Mertz, I., **A. Thoms**, and N Christians. 2020. Evaluating the use of the branched-chain amino acids in combination with urea on creeping bentgrass at establishment. Intl. Turf. Res. Soc. J. 1-8. doi:10.1002/its2.31

Mertz, I., **A. Thoms**, and N. Christians. 2021. Glycerin-based nitrogen applications for turfgrass growth. Intl. Turf. Soc. Res. J. *(In Press)*. doi:10.1002/its2.83

Mertz, I.T., N.E. Christians, and **A.W. Thoms**. 2020. Utilizing branched-chain amino acids for increasing shoot-density and establishment rate in creeping bentgrass. HortTech. 30(1):102-106. doi:10.21273/HORTTECH04514-19

Orlinski PM, Petelewicz P, Schiavon M, Mundo-Ocampo M, Becker JO, Baird JH. Pacific shoot-gall disease control in annual bluegrass putting greens using a new formulation of abamectin. Int Turfgrass Soc Res J. 2021;1–10. https://doi.org/10.1002/its2.53

Pease, B.W., **A.W. Thoms**, R. Arora, and N.E. Christians. 2020. Intercellular void space effects on Kentucky bluegrass traffic tolerance. Agron. J. 112:3450-3455. doi:10.1002/agj2.20242

Pease, B.W., **A.W. Thoms**, R. Arora, and N.E. Christians. 2021. Antioxidant enzyme responses of Kentucky bluegrass to simulated athletic traffic stress. Intl. Turf. Res. J. 1-10. doi.org/10.1002/its2.59

Pedro Infante, Ken Moore, Charlie Hurburgh, Paul Scott, Sotirios Archontoulis, Andrew Lenssen, and Shui-zhang Fei. Biomass production and composition of temperate and tropical corn in central Iowa. *Agronomy* **2018**, *8*(6), 88

Petelewicz, P., Orliński, P.M., Baird, J.H. 2020. Suppression of Annual Bluegrass in Creeping Bentgrass Putting Greens Using Plant Growth Regulators. HortTechnology. 2021; 155-165. <https://doi.org/10.21273/HORTTECH04737-20>

Petelewicz, P., Orliński, P.M., Schiavon, M., Mundo-Ocampo, M., Becker, J.O., Baird, J.H. Fluopyram Controls Shoot-Galling Caused by Pacific Shoot-Gall Nematode and Improves Turf Quality in Annual Bluegrass Putting Greens. HortTechnology. 2020; 709-718. <https://doi.org/10.21273/HORTTECH04680-20>

**Presentations at scientific meetings/conferences/symposia:**

Pudzianowska, M, Baird, JH. Genetic diversity and species-specific DNA markers of *Cynodon*. *Crop Science*. 2021; 61: 3056– 3068. <https://doi.org/10.1002/csc2.20369>

Pudzianowska, M, Mock, TJ, Martin, PM, Lukaszewski, AJ, Baird, JH. Kikuyugrass germplasm collections in the United States and Australia show low levels of genetic diversity as revealed by DArTseq genotyping. *Crop Science*. 2020; 60: 2768– 2781. <https://doi.org/10.1002/csc2.20231>

Richardson, M.D., G. Mattina, M. Sarno, J.H. McCalla, D.E. Karcher, **A.W. Thoms**, K.H. Dickson, and J.C. Sorochan. 2019. Shade effects on overseeded bermudagrass athletic fields: II. Rooting, species composition, and traction. Crop Sci. 59:1-10. doi:10.2135/cropsci2019.05.0311

S. **Fei**, Y Liu, P Merrick, B Yang.Increased tiller production in switchgrass by targeted mutagenesis of the *teosinte branched 1* genes with CRISPR/Cas9 (invited).August 8, 2018. Chinese Academy of Tropical Agricultural Sciences, Haikou, Hainan Province, China

S. **Fei**.Gene editing in polyploid grasses using CRISPR/Cas9(invited) August 13, 2018. Anhui Agricultural University, Hefei, Anhui Province, China

S. **Fei.** Applications of genome editing in crops (invited) Oct 23-25, 2018. Genome Editing Symposium, the Autonomous University of Nuevo León, Monterrey, Mexico

Schiavon, M, Mock, T, Stowell, LJ, Baird, J. Management practices for optimal kikuyugrass quality and playing conditions. *Agronomy Journal*. 2020; 112: 3402– 3410. <https://doi.org/10.1002/agj2.20198>

Schiavon, M, Petelewicz, P, Orlinski, PM, Baird, JH. Effects of fungicides on creeping bentgrass health and rooting characteristics under abiotic stress. *Int Turfgrass Soc Res J*. 2021; 1– 9. <https://doi.org/10.1002/its2.11>

Schiavon, M., Orlinski, P., Petelewicz, P., Pudzianowska, M. and Baird, J.H. (2019), Effects of Trinexapac-Ethyl, Surfactant, and Nitrogen Fertilization on Bermudagrass Water Use. Agron. J., 111: 3057-3066. <https://doi.org/10.2134/agronj2019.03.0225>

Soldat, DJ, JT Brosnan, A Chandra, RE Gaussoin, A Kowalewski, B Leinauer, FS Rossi, JC Stier, B Unruh. 2020.Estimating economic minimums of mowing, fertilizing and irrigating turfgrass. Agricultural and Environmental Letters. 5(1): p. 1-6.

Stahnke GK, Rieke PE, Cookingham PO, Shearman RC, Gaussoin RE, Kopec DM. 2021. James B Beard: The father of contemporary turfgrass science. Int Turfgrass Soc Res J. 2021;1–11. https://doi.org/10.1002/its2.34

Strunk, W.D., K.H. Dickson, J.C. Sorochan, and **A.W. Thoms**. 2021. Effects of mowing height and Cynodon spp. Cultivar on traffic tolerance. Intl. Turf. Soc. Res. J. *(In Press)*. doi:10.1002/its2.74

**Thoms, A.W.**, A.J. Lindsey, and B.W. Pease. 2020. Soil surfactant use on athletic field infield surfaces. Intl. Turf. Res. J. 1-7. doi:10.10002/its2.9

**Thoms, A.W.**, R. Bearss, J.N. Rogers, and J.C. Sorochan. 2021. An evaluation of mat hybrid turfgrass systems under simulated traffic. Short Comm. Intl Turf. Soc. Res. J. 1-5. doi:10.1002/its2.58

Waisen, P., **Z. Cheng**, B.S. Sipes, J. DeFrank, S.P. Marahatta, and K.-H. Wang. 2020. Effects of biofumigant crop termination methods on suppression of plant-parasitic nematodes. Applied Soil Ecology, 154, Article 103595.

Warnke, SE, CS Thammina, K Amundsen. 2020. Genetic variation of the fungus Atkinsonella hypoxylon infecting poverty oat grass. *Crop Science*. July/August. 60(4): p. 2130-2137.

Xiang, M, Schiavon, M, Orlinski, P, Forconi, A, Baird, JH. Identification of wetting agents for water conservation on deficit-irrigated hybrid bermudagrass fairways. *Agronomy Journal*. 2021; 113: 3846– 3856. <https://doi.org/10.1002/agj2.20450>

Yaling Qian and Sarah Wilhelm. 2021.  Compost topdressing to suppress necrotic ringspot and improve overall health of Kentucky bluegrass lawns. International Turfgrass Society Research Journal, 10, (In press).

Yaling Qian and Yao Zhang. 2020. Turfgrass under effluent water irrigation: long-term data collection. 2020 USGA Research Summaries. 255-259.

Yaling Qian. 2021. Slow/controlled-release fertilizer applications and nitrous oxide emissions from fairways and roughs. The Reporter (Rocky Mountain Chapter GCSAA) 56 (4):16-18.