

Ben Wherley, PhD

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EDUCATION

Ph.D. 2008 North Carolina State University, Crop Science
M.S. 2003 The Ohio State University, Hort. & Crop Science
B.S. 1999 The Ohio State University, Agronomy

PROFESSIONAL EXPERIENCE

DEPARTMENT OF SOIL AND CROP SCIENCES Oct 2011 – Present
Texas A&M University, College Station, TX

TEXAS A&M AGRILIFE RESEARCH July 2009 –Sept 2011
Texas AgriLife Urban Solutions Center, Dallas, TX
Assistant Research Scientist- Turfgrass Management & Physiology

DEPARTMENT OF AGRONOMY Jan. 2008 – June 2009
University of Florida, Gainesville, FL
Postdoctoral Research Associate- Turfgrass Management

PROGRAM OVERVIEW Dr. Wherley holds a 70% research/ 30% teaching appointment. His research program addresses basic and applied research issues related to warm-season turfgrass management and ecology. Research focuses on developing sustainable approaches to irrigation, nutrient management, and construction of turfgrass systems. His program collaborates with faculty across a variety of disciplines to address problems of interest to turf industry stakeholders. He currently teaches undergraduate courses in Advanced Turfgrass Ecology and Physiology (SCSC 428), Professional Development in Turfgrass Science (SCSC 489), and Sports Field Construction (SCSC 427). **SIGNIFICANT ACCOMPLISHMENTS**
Research: Since 2011, Wherley has been PI or co-PI on projects totaling \$20 million, with over \$3 million accredited to his research program. Authored/co-authored 55 peer-reviewed publications, 5 book chapters, 80 scientific abstracts, and 51 popular press articles. Lead author on 1 patent and co-author on 3 turfgrass cultivar registrations. PI on multi-disciplinary team of scientists from A&M AgriLife and Texas Engineering Experiment Station developing a patented landscape irrigation runoff mitigation system capable of significantly reducing irrigation runoff and improving soil wetting efficiency during lawn/landscape irrigation events. Co-PI on a multi-state USDA-SCRI collaborative research project aimed at developing drought/salinity tolerant turfgrasses for southern landscapes, and from which multiple cultivars with excellent salinity and drought tolerance have been released. Conducted research demonstrating water management techniques that can allow golf courses to reduce irrigation by 25-50% during water conservation periods while still maintaining good playability and turf health. Conducted multi-year landscape runoff research that has shed light on to role of nitrogen fertilizer source, timing, and irrigation amounts on nutrient retention/losses from managed turf systems. These data are being used to develop improved establishment and managed turf fertilization/irrigation recommendations for Texas. Teaching: Instructed 7 semesters of Advanced Turfgrass Ecology and Physiology (SCSC 428), 9 semesters of Professional Development in Turfgrass Science (SCSC 489), and 4 semesters of Sports Field Construction (SCSC 427). Co-teach an irrigation management workshop to golf course superintendents from around the world annually at the Golf Industry

Show. Have served on 30 graduate committees (22 MS students, 8 PhD students), and mentored 30 undergraduate student research projects. Student evaluations have consistently been above departmental average (~4.8 out of 5) Service: Since 2012, serve as Faculty Advisor for the Aggie Turfgrass Management Club, a TAMU recognized Student Activities Club. We have taken nearly 80 students to compete in the annual Sports Turf Managers Association and Golf Course Superintendents Association Turf Bowl Competitions (typically placing in the upper 70-85% of all teams), travel for which is supported largely through club fund raising activities.

RECENT PEER REVIEW PUBLICATIONS (55 Total Career) *Current or former student

1. *R. Hejl, C. Straw, **B. Wherley**, B. Grubbs, K. McInnes. 2022. Factors Leading to Spatiotemporal Variability of Soil Moisture and Turfgrass Quality within Sand-capped Golf Course Fairways. *In Press Precision Agriculture*.
2. *R. Hejl, **B. Wherley**, K. McInnes, C. Straw, and C. Fontanier. 2022. Data-Driven Irrigation Scheduling Techniques for Improved Water Use Efficiency in Sand-Capped Turfgrass Systems. *In Press Agronomy Journal*.
3. T. Pirtle, J. Erickson, K. Kenworthy, K. Cox, B. Unruh, J. Kruse, B. Cardenas-Lilicar, M. Dukes, S. Milla-Lewis, A. Chandra, **B. Wherley**, J. Moss, *M. Chavarria Sanchez. Effects of St. Augustinegrass Genotype and Reduced Irrigation on Turfgrass Quality in a Subtropical Environment. 2022. *In Press International Turfgrass Society Section of Agronomy Journal*.
4. *R. Hejl, **B. Wherley**, and C. Fontanier. 2021. Long-Term Performance of Warm-Season Turfgrass Species Under Municipal Irrigation Frequency Restrictions. *HortScience* 56(10): 1221-1225.
5. *M. Chavarria, **B. Wherley**, R. Jessup, and A. Chandra. 2021. Physiological Responses to Salinity among Warm-Season Turfgrasses of Contrasting Salinity Tolerance. *Journal of Agronomy & Crop Science* 207(4): 669-678.
6. *Z. Chen, **B. Wherley**, and C. Reynolds. 2021. Daily light integral requirements for bermudagrass and zoysiagrass cultivars: Influence of mowing height and growth regulators. *Crop Science* 61: 2837-2847.
7. H.D.R. Carvalho, *B. Chang, K. J. McInnes, J. L. Heilman, **B. Wherley**, J. Aitkenhead-Peterson. 2021. Energy balance and temperature regime of different materials used in urban landscaping. *Urban Climate* 37(100854): 1-16.
8. *B. Chang, **B. Wherley**, J. Aitkenhead-Peterson, and K. McInnes. 2021. Effects of urban residential landscape composition on surface runoff generation. *Science of the Total Environment* 783(146977): 1-11.
9. C. Fontanier, R. White, J. Aitkenhead-Peterson, J. Thomas, and **B. Wherley**. 2021. Effective rainfall estimates for St. Augustinegrass lawns under varying irrigation programs. *Agronomy Journal* 113: 3720-3729.
10. C. Fontanier, R. White, J. Aitkenhead-Peterson, J. Thomas, and **B. Wherley**. 2021. Nitrogen forms in runoff exports from St. Augustinegrass. *Agronomy Journal- International Turfgrass Research Conference Section* 113: 3730-3742.
11. *D. Dyer, **B. Wherley**, K. McInnes, *R. Hejl, and C. Reynolds. 2020. Sand-Capping Depth and Subsoil Influences on Tifway Bermudagrass Response to Irrigation Frequency and Drought. *Agronomy Journal* 112: 3491-3499.
12. *B. Chang, **B. Wherley**, J. Aitkenhead-Peterson, and J. West. 2020. Water chemistry and nitrogen source effect foliar uptake efficiency in 'Champion' bermudagrass. *In Press Journal of Plant Nutrition*. <https://doi.org/10.1080/01904167.2020.1783310>
13. *M. Chavarria, **B. Wherley**, R. Jessup, and A. Chandra. 2020. Leaf anatomical responses and chemical composition of warm-season turfgrasses to increasing salinity. *Current Plant Biology* 22: 100147 <https://doi.org/10.1016/j.cpb.2020.100147>

PROFESSIONAL HONORS & AWARDS

2021 GCSAA Affiliate Article of the Year

2020 Associate Editor- International Turfgrass Society Section- Agronomy Journal

2020 TAMU Technology Commercialization Patent Award- Chisholm zoysiagrass

2019 TAMU Technology Commercialization Patent Award- Landscape Runoff Mitigation System

2019-Present Associate Editor- Agrosystems, Geosciences, and Environment

2018 TAMU Student Veterans Association Faculty Recognition Award

2017 TAMU Technology Commercialization Patent Award- TamStar St. Augustinegrass

2015-Present Associate Editor- Crop Science

2019 President of NIMMS SERA 025 Southern Region Turf IEG

2018 Vice President of NIMMS SERA 025 Southern Region Turf IEG

2017 Secretary of NIMMS SERA 025 Southern Region Turf IEG

2015- Present Advisor to Natl. Turfgrass Evaluation Program Drought & Water Use Committee

2014- 2016 Appointed to the Fred Grau Turfgrass Science Award Committee

2013- Present Advisor to the Texas Turfgrass Association Board

2014 Soil & Crop Sciences Dept. Faculty Teaching Award

2014 ASHS Southern Region Extension Communications Award

2007 Turfgrass Council of North Carolina Eagle's Award Recipient

2007 Crop Science Society C5 Poster Competition- 1st place

2005 GCSAA Watson Fellowship Recipient

2002 Pi Alpha Xi, National Horticulture Honor Society

1999 Great Lakes Turfgrass Invitational- 1st place team

1998 Gamma Sigma Delta, National Agriculture Honor Society

PROFESSIONAL SOCIETY MEMBERSHIP

European Turfgrass Society, *2020- present*

Crop Science Society of America, *2001- present*

Turfgrass Producers International, *2018 - present*

Golf Course Superintendents Association of America, *1999- present*

Texas Turfgrass Association, *2009- present*

Texas Sports Turf Managers Association, *2014- present*