

VITA

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EDUCATION:

2006 B.S. Mississippi State University. Agronomy
2009 M.S. Mississippi State University. Plant Pathology
2013 Ph.D. University of Arkansas. Horticulture

PROFESSIONAL EXPERIENCE:

2013-present Assistant Professor, Texas Tech University (50% Teaching 50% Research)

LICENSES AND CERTIFICATIONS

2017-present TDA Pesticide Applicators License; Lawn and Ornamental

MEMBERSHIP IN PROFESSIONAL AND HONORARY SOCIETIES:

Professional:

1. Golf Course Superintendents Association of America; 2003 to present
2. Crop Science Society of America; 2008 to present
3. Texas Turfgrass Association; 2013 to present
4. West Texas Golf Course Superintendents Association; 2013 to present
5. Sports Turf Managers Association; 2014 to present
6. Texas Sports Turf Managers Association; 2014 to present
7. American Society of Horticultural Science; 2018 to present

Honorary:

1. Gamma Sigma Delta, 2014 to present

HONORS AND AWARDS:

1. Texas Tech Alumni Association New Faculty Award for CASNR in 2016
2. John Burns Award from CISER at TTU 2017

AREA OF EXPERTISE:

1. Turfgrass management for golf courses, athletic fields, and lawns
2. Water conservation strategies for turf management

PUBLICATIONS

Refereed Journals: total published 6, in press 0

1. Kreuser, W., **J. Young**, and M. Richardson. 2017. Modelling performance of growth regulators. *Agricultural and Environmental Letters*. doi:10.2134/ael2017.01.0001. (*Impact factor = N/A; Citations = 4; Accept/reject ratio = 61%*)
Contributions – Data collection from region and assisted with writing manuscript
2. **Young, J.**, M. Richardson, and D. Karcher. 2016. Golf ball mark severity and recovery as effected by mowing height, rolling frequency, foot traffic, and moisture. *Agronomy Journal*. 109:1-7. doi:10.2134/agronj2016.04.0240. (*Impact factor = 1.83; Citations = 0*)
Contributions – Corresponding author all actions; Featured cover article for month
3. **Young, J.**, M. Richardson, and D. Karcher. 2015. Creeping bentgrass putting green response to combined mowing, rolling, and foot traffic under environmental stress. *Agronomy Journal*. Available online doi:10.2134/agronj15.0087. (*Impact factor = 1.83; Citations = 2*)
Contributions – Corresponding author for data collection, analysis, and writing
4. Strunk, W., D. Karcher, **J. Young**, A. Patton, and M. Richardson. 2015. Golf shot performance characteristics influenced by ball lie. *Crop, Forage and Turfgrass Management*. doi: 10.2134/cftm2015.0136. (*Impact factor = N/A; Citations = 0; Accept/reject ratio = 56%*)
Contributions – Data collection and edits to manuscript
5. Udeigwe, T., **J. Young**, T. Kandakji, D.C. Weindorf, M.A. Mahmoud, and M.H. Stietiya. 2014. Elemental quantification, chemistry, and source apportionment in golf course facilities in semi-arid urban landscape using portable x-ray fluorescence spectrometer. *Solid Earth Discuss (5)* 1-26. (*Impact factor = 1.02; Citations = 3*)
Contributions – Data collection and edits to manuscript
6. **Young, J.** T.K. Udeigwe, T. Kandakji, P. Gautam*, M.A. Mahmoud. 2014. Evaluating management-induced soil salinization in golf courses in semi-arid landscapes: extending portable x-ray fluorescence spectrometry to soil salinity prediction. *Solid Earth Discuss (5)* 1-23. (*Impact factor = 1.02; Citations = 14*)
Contributions – Data collection and edits to manuscript

In press: total of 0

Proceedings: total of 0

Abstracts: total of 16

1. Culpepper*, T. and **J. Young**. 2018. Chronic drought stress of common turfgrass species in a semiarid environment. *Crop Science Society of America Abstract*.
2. Sapkota*, M. and **J. Young**. 2018. Regrowing bermudagrass following jackrabbit damage. *Crop Science Society of America Abstract*.
3. Escamilla*, E., **J. Young**, and S. Deb. 2018. Effects of cultivation practices and product treatments on soil moisture retention characteristics in golf course soils with contrasting textures. *Crop Science Society of America Abstract #49-4*

4. Baliga*, V. and **J. Young**. 2017. Effects of consumer end conservation products on bermudagrass quality in severe drought conditions. Crop Science Society of America Abstract #107197.
5. Escamilla, E., S. Deb, L. Li*, and **J. Young**. 2017. Estimating the hydraulic parameters of golf course soils under different cultivation practices and product treatments. Soil Science Society of America Abstract #107132.
6. Culpepper*, T. and **J. Young**. 2017. Chronic drought stress of common lawn turf species in the United States transition zone. Crop Science Society of America Abstract #106961.
7. **Young, J.** and L. Li*. 2017. Soil salinity reductions with cultivation practices and products. Crop Science Society of America Abstract #344-1.
8. Baliga*, V. and **J. Young**. 2017. Motivations for water conservation among homeowners in semi-arid West Texas. Crop Science Society of America Abstract #128-3.
9. **Young, J.** 2016. Reducing irrigation demand with polymer coated sand. Crop Science Society of America Abstract # 169-1709.
10. Li*,L. and **J. Young**. 2016. Reducing salinity parameters with cultivation practices and products on golf course fairways. Crop Science Society of America Abstract # 198-3
11. Li*, L. and **J. Young**. 2015. Reducing salinity parameters with cultivation practices and products on golf course fairways. Crop Science Society of America Abstract # 143-3.
12. White*, R. and **J. Young**. 2015. Growing degree day models of plant growth regulator efficacy on creeping bentgrass putting greens. Crop Science Society of America Abstract # 80-8. (oral)
13. **Young, J.** and J. Moore-Kucera. 2015. Fertilizer rate and source to reduce summer chlorosis of Kentucky Bluegrass. Crop Science Society of America. Abstract # 239-5. (oral)
14. Gautam*, P. and **J. Young**. 2014. Long-term carbon sequestration potential from bermudagrass fairways in Lubbock, TX. Crop Science Society of America Abstract # 289-27. (poster)
15. White*, R. and **J. Young**. 2014. Suppression of creeping bentgrass with sequential applications of plant growth regulators. Crop Science Society of America Abstract # 289-21. (poster)
16. Udeigwe, T, **J. Young**, T. Kandakji, and P. Gautam*. 2013. Examination in changes in soil chemistry properties resulting from irrigation source and turf management in the Texas high plains. Soil Science of America Abstract #271-13. (poster)

Technical reports: total of 2

1. **Young, J.** 2016. Update on Pesticide Resistance in Sports Turf. SportsTurf 32(1):20-25.
2. White*, R. and **J. Young**. 2015. Suppression of creeping bentgrass with sequential applications of PGRs. Golfdom Magazine 71(6):43.

Other publications: total of 4

1. **Young, J.**, M. Richardson, and D. Karcher. 2017. Creeping bentgrass response to combined stresses. Australian Turfgrass Management, May-June:56-60.
2. **Young, J.** 2016. Evaluation of polymer-coated sands to conserve water. Sports Turf Magazine 32(10):20-22.
3. Gautam*, P. and **J. Young**. 2015. Long-term carbon sequestration potential from bermudagrass fairways. Golf Course Management Magazine 83(9):99.

4. **Young, J.**, T. Udeigwe, and L. Li*. 2015. Reducing salinity in golf course fairways. Golf Course Management Magazine 83(5):98.

PRESENTATIONS AND LECTURES: Total of 95

1. February 28, 2019, Master Gardener's Education: Turf selection and management, Master Gardener Training, Lubbock, TX.
2. February 15, 2019, Turf management for West Texas, Texas A&M AgriLife Commercial Turf and Ornamental Workshop, Lubbock, TX.
3. January 11, 2019, Why are my pesticides becoming less effective?, Arkansas Turfgrass Association Annual Conference, Hot Springs, AR.
4. January 10, 2019, Getting the most out of PGR applications on bentgrass, Arkansas Turfgrass Association Annual Conference, Hot Springs, AR.
5. December 13, 2018, Sure seems like this pesticide worked better before, Texas Turfgrass Association Winter Conference, San Antonio, TX.
6. December 13, 2018, How much water can my soil hold?, Texas Turfgrass Association Winter Conference, San Antonio, TX.
7. October 31, 2018, Applying irrigation more efficiently to the landscape, West Texas Golf Course Superintendents Association Irrigators Conference, Lubbock, TX.
8. August 28, 2018, Nematodes: The power of invisibility, West Texas Golf Course Superintendent's Association, Canyon, TX.
9. August 16, 2018, Maximizing water use efficiency in turf, Texas Nursery and Landscape Association Conference, San Antonio, TX.
10. July 15, 2018, What in the world is wrong with my turf?, Texas Turfgrass Association Summer Conference, Bastrop, TX.
11. April 14, 2018, Maximizing irrigation efficiency in your turfgrass landscape, 2nd Saturday Lubbock Arboretum Meeting, Lubbock, TX.
12. March 5, 2018, Management of your tall fescue lawn through the seasons, Post-Master Gardener Education, Lubbock, TX.
13. February 5, 2018, Preparing for and managing turf through water shortages and drought, Golf Course Superintendents Association of America, San Antonio, TX. (B. Wherley Texas A&M).
14. January 31, 2018, Proper Landscape Management Practices in IPM, Amarillo Pesticide Recertification Course, Amarillo, TX.
15. January 26, 2018, Spray Drift Minimization, Lubbock County Pesticide Recertification Course, Lubbock, TX.
16. December 7, 2017, Can you alleviate salinity with less water? Golf session at Texas Turfgrass Association Winter Conference, Dallas, TX.
17. December 7, 2017, Drift and your responsibility, Commercial session at Texas Turfgrass Association Winter Conference, Dallas, TX.
18. November 8, 2017, Building a drought management plan, Live Webinar for BrightView Golf and the Golf Course Superintendents Association of America, 45 Attendees online live.

19. October 25, 2017, Soil salinity lowered without more water? 5-minute Rapid Session at Crop Science Society of America Conference, Tampa Bay, FL.
20. September 20, 2017, Cultivation practices and management of athletic fields, Texas Sports Turf Managers Association Field Day West Texas Region, Canyon, TX.
21. July 7, 2017, Professional Turfgrass Field day research updates and demonstrations, Texas Tech Turf Field Day, Lubbock, TX.
22. June 27, 2017, Let's Talk Turf, Randall County Horticulture Series, Canyon, TX.
23. February 10, 2017, Minimizing Turf Pests with Selection and Management Practices, Ornamental and Turf Symposium, Amarillo, TX.
24. February 7, 2017, Preparing for and managing turf through water shortages and drought, Golf Course Superintendents Association of America, Orlando, FL. (B. Wherley Texas A&M).
25. January 31, 2017, Weed Management Practices for Turf, Amarillo Pesticide Recertification Course, Amarillo, TX.
26. January 27, 2017, Proper Turf Management Practices for IPM, Lubbock County Pesticide Recertification Course, Lubbock, TX.
27. December 15, 2016, Labels, Labels, Labels – They are Important, Texas Turfgrass Association, San Antonio, TX.
28. November 30, 2016, Let's calibrate: Save your grass and bottom line, Oklahoma Turfgrass Research Foundation Conference, Stillwater, OK.
29. November 29, 2016, Bermudagrass sports field selections for the transition zone, Oklahoma Turfgrass Research Foundation Conference, Stillwater, OK.
30. November 29, 2016, Water retention products for the landscape, Oklahoma Turfgrass Research Foundation Conference, Stillwater, OK.
31. November 18, 2016, Commercial and residential turf weed management, Bes-Tex Pesticide Applicators Training, San Angelo, TX.
32. November 3, 2016, Year-long weed control in turf, AgriLife Extension Integrated Pest Management Conference, Dallas, TX.
33. October 17, 2016, West Texas Lawn Care: Turf or not to turf, that is the question, Osher Lifelong Learning Institute, Lubbock, TX.
34. September 26, 2016, Texas Tech Turf Research Update, Lone Star Golf Association's Texas Trophy, Amarillo, TX.
35. September 13, 2016, Weed management strategies for athletic fields, Texas Sports Turf Managers Association, Amarillo, TX.
36. August 18, 2016, The nitty gritty in residential turf management, Texas Nursery and Landscape Association Conference, Houston, TX.
37. August 18, 2016, The Soil Food Web, Texas Nursery and Landscape Association Conference, Houston, TX.
38. July 27, 2016, iSTEM—Turfgrass Science, Visiting Chinese Students in Association with STEM-CORE, Lubbock, TX.
39. July 18, 2016, Evaluation of polymer coated sands and residential wetting agents for commercial turf use, Texas Turfgrass Association Summer Conference, Bastrop, TX.

40. July 17, 2016, There's a fungus among us; understanding turf diseases, Texas Turfgrass Association Summer Conference, Bastrop, TX.
41. April 9, 2016, Picking the right turf for west Texas, Texas A&M AgriLife Potter County Education, Amarillo, TX.
42. April 2, 2016, SASES Breakout Session: Turfgrass Science Research. Students of Agronomy, Soils, and Environmental Sciences Conference, Lubbock, TX.
43. March 31, 2016, Turf and Athletic Field Management for School Grounds, Texas A&M AgriLife Independent School District Grounds Education, Lubbock, TX.
44. March 29, 2016, Recognizing and Managing Soil-Borne Pathogens on Your Golf Course, Louisiana-Mississippi Golf Course Superintendent Association, New Orleans, LA.
45. March 19, 2016, Basic Turf Selection and Management for Lubbock, Texas, Lubbock Master Gardener's Internship Class, Lubbock, TX.
46. March 6, 2016, Turfgrass selection and irrigation management for West Texas, Lubbock Home and Garden Expo, Lubbock, TX.
47. February 9, 2016, Preparing for and managing turf through water shortages and drought, Golf Course Superintendents Association of America, San Diego, CA. (B. Wherley Texas A&M)
48. January 28, 2016, Best management practices for commercial and home lawns in West Texas, Texas A&M AgriLife Commercial Applicators CEUs, Lubbock, TX.
49. December 17, 2015, Drifting – Watch out!, Texas Turfgrass Association, San Antonio, TX.
50. December 16, 2015, Proper fertility practices, Texas Turfgrass Association, San Antonio, TX.
51. December 15, 2015, Bentgrass green management: Utilizing PGRs and growing degree day models, Texas Turfgrass Association, San Antonio, TX.
52. November 19, 2015, Identifying and managing common insect pests on the Southern High Plains of Texas, Winfield Solutions CEU Event, Lubbock, TX.
53. November 17, 2015, Fertilizer source and rate to reduce summer chlorosis of Kentucky bluegrass, ASA-CSSA-SSSA Conference, Minneapolis, MN.
54. November 5, 2015, Water quantity and quality in urban and peri-urban areas, Agriculture in Arid Areas Conference with Delegates from Oman, Lubbock, TX.
55. October 27, 2015, Summer chlorosis and using technology to improve turf health, West Texas Golf Course Superintendents Association, Lubbock, TX.
56. October 27, 2015, Drift away: Give me the people, but keep the pesticides on your target, West Texas Golf Course Superintendents Association, Lubbock, TX.
57. October 27, 2015, A West Texan's integrated pest management plan, West Texas Golf Course Superintendents Association, Lubbock, TX.
58. October 21, 2015, Review your bentgrass management plan, Golf Course Superintendents Association of America, Webinar online.
59. September 17, 2015, Turfgrass management in West Texas, Guest lecture in Dr. Mike Richardson's class at University of Arkansas, Fayetteville, AR.
60. September 16, 2015, The economic impact of water quality and scarcity on agriculture and horticulture production on the Southern High Plains, Department of Horticulture at University of Arkansas, Fayetteville, AR.
61. August 3, 2015, Show and tell turfgrass lesson, Lubbock Arboretum, Lubbock, TX.
62. July 29, 2015, iSTEM Turfgrass Science, iSTEM/PRISM, Lubbock, TX.

63. July 20, 2015, Developing and implementing an IPM plan for your turf's everyday needs, Texas Turfgrass Association, Galveston, TX.
64. June 13, 2015, Conserving water in home lawns through turf selection and management, Lubbock Arboretum, Lubbock, TX.
65. June 3, 2015, Distance education in teaching turfgrass management, SERA-25 Research Group, Oklahoma City, OK.
66. March 12, 2015, Selecting and managing turfgrass in home lawns, Lubbock Master Gardeners, Lubbock, TX.
67. March 3, 2015, Turf management strategies to mitigate urban heat islands, Texas Tech Climate Science Center, Lubbock, TX.
68. February 24, 2015, Preparing for and managing turf through water shortages and drought, Golf Course Superintendents Association of America, San Antonio, TX. (B. Wherley Texas A&M)
69. January 31, 2015, Picking the right turf for West Texas, American Society of Landscape Architects West Texas Chapter, Lubbock, TX.
70. January 22, 2015, Turfgrass selection for disease, herbicide, and drought tolerance, Texas A&M AgriLife Commercial CEU Event, Lubbock, TX.
71. December 17, 2014, Proper fertility practices for commercial turf management, Texas Turfgrass Association, Ft. Worth, TX.
72. December 17, 2014, Golf's future includes the use of poor quality water: Are you ready? Texas Turfgrass Association, Ft. Worth, TX.
73. November 10, 2014, Turf disease identification and management for Central Texas, Central Texas Golf Course Superintendents Association, Kyle, TX.
74. November 6, 2014, Water use of turfgrass species in West Texas, TTU Policy Roundtable Discussion, Lubbock, TX.
75. October 21, 2014, How calibration can help your turf health and finances, West Texas Golf Course Superintendents Association, Lubbock, TX.
76. July 21, 2014, Specticle field day demonstration and update, Texas Tech Turf Field Day, Lubbock, TX.
77. July 21, 2014, Sodium removal from golf course fairways, Texas Tech Turf Field Day, Lubbock, TX. (T. Udeigwe Texas Tech University)
78. July 21, 2014, Wetting agent demonstration on V8 creeping bentgrass, Texas Tech Turf Field Day, Lubbock, TX.
79. July 21, 2014, Drip system demonstration for determining water use of turf species in West Texas, Texas Tech Turf Field Day, Lubbock, TX.
80. June 24, 2014, Water use of turfgrass species in West Texas, West Texas Home Builders Association, Lubbock, TX.
81. April 9, 2014, Weed identification and management for West Texas, Texas A&M AgriLife Sports Turf Workshop, Lubbock, TX.
82. February 4, 2014, Preparing for and managing turf through water shortages and drought, Golf Course Superintendents Association of America, Orlando, FL (B. Wherley Texas A&M)
83. January 20, 2014, Preparing for and managing turf through water shortages and drought, Rio Grande Golf Course Superintendents Association, El Paso, TX.
84. December 5, 2013, Help! My turf has declined and I'm not sure it will recover, Kansas Turfgrass Conference, Topeka, KS.

85. December 4, 2013, Foliar nitrogen application on creeping bentgrass putting greens, Kansas Turfgrass Association, Topeka, KS.
86. December 4, 2013, Effect of intensive mowing and rolling practices on creeping bentgrass putting greens, Kansas Turfgrass Association, Topeka, KS.
87. December 4, 2013, Drought response in tall fescue cultivars, Kansas Turfgrass Association, Topeka, KS.
88. November 14, 2013, Foliar feeding nitrogen to putting green turf, Texas Turfgrass Association, Dallas, TX.
89. November 13, 2013, Best management practices for leaf spot of bermudagrass, Texas Turfgrass Association, Dallas, TX.
90. November 13, 2013, Managing spring dead spot from cultural practices to fungicides Texas Turfgrass Association, Dallas, TX.
91. November 8, 2013, Out of sight, out of mind: How soil affects turfgrass management, Texas Recreation and Park Services, Midland, TX.
92. October 22, 2013, Spring dead spot management, West Texas Golf Course Superintendents Association, Lubbock, TX.
93. October 22, 2013, Preparing for and managing turf through water shortages and drought, West Texas Golf Course Superintendents Association, Lubbock, TX.
94. July 8, 2013, Physiological effects of mowing, rolling and foot traffic on creeping bentgrass putting greens, Texas Turfgrass Association, Arlington, TX.
95. May 28, 2013, Physiological effect of mowing, rolling, and foot traffic on creeping bentgrass putting greens, Turf Chat Episode 29, Online.

GRADUATE STUDENT COMMITTEES:

Completed:

Chaired: total of 6

M.S.

1. Prativa Gautam Completed in 2015. Long-term carbon sequestration and budget from golf courses managing warm-season turfgrass in West Texas.
2. Li Li Completed May 2017. Incorporating cultivation practices and products to reduce salinity parameters from poor quality irrigation water on golf course fairways.
3. Cole Watts Completed May 2017. Distance Horticulture Student (no thesis)
4. Ramzi White Completed December 2017 Suppression of shoot growth and improved putting green performance traits with use of plant growth regulators.
5. Jason Grams Completed May 2018 Distance Horticulture Student (no thesis)
6. Jonathan Lancaster December 2018 Distance Horticulture Student (no thesis)

Ph.D.

Co-Chaired: total of 0

Committee member of: total of 3

M.S.

1. Chris Belt Completed in 2014. Distance M.S. Student (no thesis) Dr. Ritchie
2. Kelley Rawlsky Completed in 2015. Distance M.S. Student (no thesis) Dr. Sharma

Ph.D.

1. Madhav Dhakal May 2019 Effects of alfalfa density and growth type on forage production, quality and water use in native grass pasture.

In progress:**Chair: Total of 6****M.S.**

1. Travis Culpepper August 2019 Determine crop coefficients for irrigating turf species adapted for growth in West Texas.
2. Manish Sapkota December 2019 Soil characteristics common with home age assist in irrigation recommendations
3. Eduardo Escamilla May 2020 Optimizing sensor technology to identify drought stress on golf course fairways using unmanned aerial systems
4. Jose L. Gradilla December 2020 Horticulture Distance (non-thesis)

Ph.D.

1. Vikram Baliga August 2019 Evaluation of water conservation practices and acceptance in residential landscapes.

Co-Chair: total of 1

1. Juan Cantu May 2020 Using spectral sensors on unmanned aerial systems to identify drought stress in agriculture production Co-chair with Dr. Ritchie

Committee member of: total of 4**M.S.**

1. Iryna Andrenko August 2019 Salinity tolerance of Texas wildflowers
2. Caleb Tomlinson December 2019 Diversity of cavity nesting bees

Ph.D.

1. Samuel Discua December 2019 Patterns of bee diversity and abundance across different land use types on the Southern High Plains.
2. Russell Plowman May 2020 Urban forest modelling for arid and semi-arid environments

UNDERGRADUATE ADVISING:

Advise all undergraduate students specializing in Horticulture and Turfgrass that focus on turfgrass to enter the golf, sports turf, or lawn care sectors. Began advising some horticulture majors in 2016

2013 15 undergraduate students
2014 13 undergraduate students
2015 12 undergraduate students

2016	15 undergraduate students
2017	21 undergraduate students
2018	21 undergraduate students
2019	20 undergraduate students

TEACHING RESPONSIBILITIES:

1. Fall Semester PSS 3309-001 and 3309-501 *Introduction to Turfgrass Science Lecture and Lab*. Basic turfgrass management course focusing on turf identification, proper management, and common pests of turfgrass.
2. Spring Semester PSS 4316/5318-001 *Turfgrass Physiology and Ecology*. Capstone turfgrass management course that teaches students how environmental stress and maintenance practices effect the physiological health of turfgrass, ecological strategies to manage healthier turf, and how water quantity and quality issues can be overcome in turf management.
3. Spring Semester PSS 4316/5318-D01 *Turfgrass Physiology and Ecology (Distance)*. Capstone turfgrass management course that teaches students how environmental stress and maintenance practices effect the physiological health of turfgrass, ecological strategies to manage healthier turf, and how water quantity and quality issues can be overcome in turf management.
4. Even Year Spring Semester PSS 4318-001 *Turf Pest Management*. Advanced turfgrass management course that focuses on common turf pest (weeds, diseases, and insects) identification and management.
5. Summer Semester PSS 3309-D01 *Introduction to Turfgrass Science (Distance)*. Basic turfgrass management course focusing on turf identification, proper management, and common pests of turfgrass.
6. PSS 1100-001 and D01 *Freshman and Transfer Seminar*. Basic introduction to Texas Tech Campus and Departmental Faculty. Required class for all students to initiate E-portfolios for Communication Literacy Program requirement (Co-teach)

FIVE YEAR SUMMARY OF TEACHING EVALUATIONS

Dr. Joseph Young

NEW EVALUATION FORM:

Term/Class	Number of Students	Course Objectives (Ques #1) Mean	Instructor Overall (Ques #2) Mean	Course/Valuable Learning Exper (Ques #3) Mean
Fall 2018				
PSS 3309-001	25	4.9	4.8	4.8
PSS 1100-001	26	4.6	4.4	4.0
PSS 1100-D01	18	4.6	4.7	4.3
Summer 2018				
PSS 3309-D01	22	4.90	4.90	4.80
Spring 2018				
PSS 4316-001	6	5.00	5.00	4.80
PSS 4316-D01	9	4.80	4.80	4.80
PSS 4318-001	9	5.00	5.00	4.90
Fall 2017				
PSS 3309-001	30	4.80	4.80	4.80
Summer 2017				
PSS 3309-D01	17	4.67	4.67	4.67
Spring 2017				
PSS 4316-001	5	4.80	4.80	4.80
PSS 4316-D01	13	4.67	4.67	4.00
PSS 5318-001	1	No Evaluation	No Evaluation	No Evaluation
PSS 5318-D01	4	No Evaluation	No Evaluation	No Evaluation
Fall 2017				
PSS 3309	8	4.86	4.71	4.86
Summer 2016				
PSS 3309-D01	27	4.89	4.79	4.68
Spring 2016				
PSS 4316-001	10	4.90	4.90	4.89
PSS 4316-D01	6	5.00	5.00	5.00
PSS 4318-001	10	4.88	4.75	4.75
Fall 2015				
PSS 3309-01	23	4.95	4.90	4.90
Summer 2015				
PSS 3309-D01	13	4.83	4.67	4.67
Spring 2015				
PSS 4316-001	4	No Evaluation	No Evaluation	No Evaluation
PSS 4316-D01	11	4.88	4.63	4.50
PSS 5318-001	1	No Evaluation	No Evaluation	No Evaluation
Fall 2014				
PSS 3309-001	20	4.95	4.95	5.00

OLD EVALUATION FORM:

Term/Class	Number of Students	Course Objectives (Ques #14) Mean	Instructor Overall (Ques #1) Mean	Course/Valuable Learning Exp (Ques #11) Mean
Summer I 2014				
PSS 3309-D01	13	4.80	4.60	4.40
Spring 2014				
PSS 4316-001	9	5.00	4.71	4.86
PSS 4316-D01	7	4.67	5.00	5.00
PSS 4318-001	10	4.71	4.71	4.71
PSS 5318-001	2	4.50	4.00	4.50
PSS 5318-D01	3	4.50	4.00	5.00
PSS Average	--	4.60	4.40	4.40
CASNR Average	--	4.50	4.30	4.30
TTU Average	--	4.50	4.30	4.30

Other Teaching Responsibilities

Turf Club Advisor (2013-present)

Turf Bowl preparation for GCSAA conference (2013-present) 10 hours in Fall

GRANTS AND AWARDS: total funded \$376,854

Funded: \$257,511

2013 (\$17,450)

1. PI, Growth suppression of creeping bentgrass putting greens using combination plant growth regulators, Turfgrass Research Education and Extension Endowment \$4,800, (\$4,800).
2. PI, Evaluate A11825A + A9180A for turf enhancement and growth regulation, Syngenta, \$12,650, (\$12,650).

2014 (\$48,420.50)

1. PI, Evaluation of Specticle pre-emerge herbicide efficacy in bermudagrass lawns based on formulation, Bayer Crop Science, \$2,500, (\$2,500).
2. PI, Test A11825A + A9180A for turf enhancement and growth regulation, Syngenta, \$10,350 (\$10,350).
3. Co-PI, Suppression of shoot growth and improved putting green performance traits with plant growth regulators, United States Golf Association \$10,000 (\$5,000).
4. PI, Incorporation of cultivation practices and products to reduce salinity parameters from poor water quality on golf course fairways, United States Golf Association, \$29,559 (\$15,000).
5. PI, Evaluation of QualiPro Enclave alone and in combination with QP Strobe 50WG fungicide for spring dead spot control in bermudagrass, QualiPro, \$5,571, (\$5,571).
6. PI, Incorporating cultivation practices and products to reduce salinity parameters from poor quality irrigation water on golf course fairways, Golf Course Superintendents Association of America, \$19,999, (\$9,999.50).

2015 (\$34,881)

1. Co-PI, Moore-Kucera, J., Evaluation of VitAg organic sulfur based fertilizer to reduce chlorosis of Kentucky bluegrass, VitAg Corporation (Anuvia Plant Nutrients), \$21,477 (\$12,886.20).
2. Co-PI, Williams, R., Economic analysis of residential irrigation habits and landscape design to reduce outdoor water usage, High Plains Underground Water District, \$3,000 (\$1,500)
3. PI, Evaluation of water retention products for residential lawns, Texas Research Education and Extension Endowment, \$3,000 (\$3,000)
4. PI, Selecting bermudagrass cultivars to overcome environmental challenges in Texas, Texas Research Education and Extension Endowment \$2,500, (\$2,500)
5. Co-PI, Klein, C., Y. Luo, C. Casanova, C. McKenney, D. Montague, D. Lawver, Xeric Landscape Design Studio; Initial Inception and Implementation Plan, USDA-NIFA Cooperative State Research Ed Extension Service, \$149,948 (\$14,994.80)

2016 (\$19,400)

1. PI, Montague, D. Physiological impact of chronic water stress on common residential lawn turf species, Texas Research Education and Extension Endowment, \$5,470 (\$2,400).

2. PI Evaluation of overseeded ryegrasses on golf course fairways, National Turfgrass Evaluation Program, \$16,000 (\$16,000).
3. Co-PI, Klein, C., Y. Luo, C. Casanova, C. McKenney, D. Montague, D. Lawver, GRI Xeric Landscape Design Studio; Initial Inception and Implementation Plan, USDA-NIFA Cooperative State Research Ed Extension Service, \$10,000 (\$1,000)

2017 (\$101,056)

1. PI, G. Ritchie, W. Guo, S. Deb, D. Weindorf, E. Bernard, R. Williams, and D. McCall, Enhancing water conservation through remote sensing from unmanned systems, Ogallala Aquifer Program \$86,622 (\$53,247).
2. PI, S. Deb, G. Ritchie, and W. Guo, Enhancing water conservation through remote sensing on golf courses, United States Golf Association, \$95,618 (\$47,809).

2018 (\$4,303.80)

1. PI, L. Slaughter, C. Coldren, and V. Acosta-Martinez, Soil health variability among residential landscapes impact urban water conservation, High Plains Underground Water District, \$7,173 (4,303.80)

2019 (\$32,000)

1. PI, S. Deb, and K. Karcher (University of Arkansas), Playing surface effects of surfactants on creeping bentgrass putting greens, Golf Course Superintendents Association of America and Texas GCSA Chapters, \$40,000 (\$32,000)

Pending:

2019

Rejected:

2013

1. PI, Moore-Kucera, J. Long-term carbon sequestration and budget from golf courses managing warm-season turfgrass in West Texas, United States Golf Association, \$55,348.

2014

1. PI, Evaluating bermudagrass cultivars for use on athletic fields in Lubbock, TX, Texas Tech Alumni Association, \$9,889.
2. PI, Cox, R., C. McKenney, D. Montague, J. Moore-Kucera, G. Perry, G. Ritchie, J. Sharma, T. Udeigwe, and R. Williams, Increasing agricultural water availability through enhanced urban landscape design and sustainable management practices, USDA-NIFA Water for Agriculture \$4,797,784

2015

1. PI, Longing, S., C. McKenney, V. Baliga, R. Wallace, and E. Bernard, Pollinator Ecology Conservation in Urban Landscapes Influence on Specialty Crop Production in Major Urban-Agriculture Nexus, USDA-SCRI Pre-proposal, \$2,499,231.

2016

1. PI, Vanos, J., C. McKenney, and D. Montague, Demonstration Landscapes to Optimize Ecosystem Services of Urban Communities in Lubbock, TX, CH Foundation, \$49,880
2. PI, Vanos, J., C. McKenney, and D. Montague, Optimizing Landscape Designs to Conserve Water and Maximize Environmental Ecosystem Services, Texas Department of Agriculture Specialty Crop Block Grant Program, \$60,243

3. PI, Carrillo, M. Reducing water consumption on golf courses with canopy temperature sensors. United States Golf Association, \$45,095.
4. PI, Weindorf, D. Effectiveness of PXRf gun to measure spatial variability on golf course fairways. United States Golf Association, \$51,922.
5. PI, Carrillo, M. Optimum canopy temperature establishment for golf course turf species, Golf Course Superintendent Association of America and Lone Star Golf Association, \$20,000.
6. Co-PI, Hite, R., J. Young, E. Midobuche, J. Gottlieb, A. Benavides, and J. Dwyer, Life-STEM Latina STEM after-school program, National Science Foundation, Advancing Informal STEM Learning (AISL), \$261,480.
7. PI, C. McKenney, T. Montague, E. Bernard, M. Baker, R. Williams, and T. Davis, Desirable, Adaptive, Resilient Landscapes for Urban Land Cover in Semiarid Regions, TTU Integrated SEED Grant, \$150,000.

2017

1. Co-PI, J. Dwyer, R. Hite, J. Rayfield, D. Weindorf, and H. Coats, Becoming agricultural scientists through innovative curriculum (BASIC): An educative model for rural students, USDA-WAMS, \$99,997.
2. Co-PI, Hite, R., J. Dwyer, and J. Young. Agrifutures at Texas Tech University, CH Foundation, \$25,000.
3. PI, J. Booker, and L. Slaughter, Soil health variability among residential landscapes impact urban water conservation, Texas Research Education and Extension Endowment, \$6,399

2018

1. PI, J. Booker, and L. Slaughter, Soil health variability among residential landscapes impact urban water conservation, The Lawn Institute, \$13,407
2. PI, Radio Advertising for TTU Turf program, Texas Tech Alumni Association Excellence Grant, \$9,900.
3. PI, C. Coldren, and K. Rainwater, EDYS model to determine surface water quality under golf course management. Water Research Foundation, \$39,914
4. PI, C. Coldren, and K. Rainwater, EDYS model to determine surface water quality under golf course management, United States Golf Association, \$95,720

2019

1. PI, W. Guo, and G. Ritchie, Calibrating thermal sensors to identify drought stress on common lawn turf species, The Lawn Institute, \$23,487
2. Pre-proposal Co-PI, Reducing lawn turfgrass irrigation with affordable remote sensing technology, USDA Specialty Crop Research Initiative CAP Grant, \$4,993,696.

Cash and Gifts-in-Kind: total funded \$119,343

Funded:

2013 (\$8,000)

1. PI, Coated tall fescue establishment from seed, Aquatrols, \$2,500
2. PI, Wetting agents and surfactants to improve establishment of creeping bentgrass with reduced irrigation, Aquatrols, \$2,500

3. PI, Installation of an irrigation frequency system on sand-based rootzone putting greens, Texas Turfgrass Association \$3,000; Rainbird Corp (8 valves and 150 spray head bodies worth \$286.84).

2014 (\$24,300)

1. PI, Equipment to manage grasses installed on subsurface drip system, High Plains Underground Water District, \$6,000
2. PI, Evaluating Specticle Flo and G for use in native areas on golf courses, \$5,000
3. PI, Evaluating wetting agents at different irrigation levels, \$2,500
4. PI, Evaluating Oars Original and Oars HS at different irrigation levels on creeping bentgrass putting greens, AquaAid, \$500
5. PI, Evaluating sodium removal with use of Verde-Cal G and AcidipHlow applications to bermudagrass, AquaAid, \$1,000
6. PI, Herbicide evaluation for post-emergent control of khakiweed in bermudagrass, PBI Gordon, \$1,800
7. PI, Herbicide evaluation for post-emergent control of khakiweed in bermudagrass, QualiPro, \$1,500
8. PI, Coated tall fescue seed establishment from seed, Aquatrols, \$2,500
9. PI, Salinity movement through creeping bentgrass putting greens on sand-based rootzones, Aquatrols, \$3,500

2015 (\$14,450)

1. PI, Contribution to research efforts evaluating cultivation practices and products to alleviate salinity stress on golf fairways, Aquatrols, \$8,000
2. PI, Evaluation of water conservation products for home lawn application, Revive Fertilizer, \$1,800
3. PI, Evaluation of water conservation products for home lawn application, AquaSmart, \$1,200
4. PI, Company donations to support and fund the Texas Tech Turf Field Day, Multiple company sponsors, \$3,450

2016 (\$40,860)

1. Evaluation of Residential Water Retention Products – Year 2 \$4,000
2. Evaluation of bermudagrass varieties for West Texas – Irrigation parts from Rainbird \$1,029
3. Azomite micro-nutrient application to improve hybrid bermudagrass golf course fairways \$5,981
4. GreenActivator as component of creeping bentgrass putting green fertility program \$3,000
5. PBI Gordon experimental herbicide trial for Field Bindweed control \$2,800
6. PBI Gordon experimental herbicide trial for khakiweed control \$5,000
7. Seeded bermudagrass cultivar evaluation: Year 3 for Pure Seed Testing \$3,750
8. Syngenta experimental fungicide trial for summer patch \$5,500
9. Bayer experimental fungicide trial for summer patch \$1,800
10. Anuvia Plant Nutrients application to prevent summer chlorosis of Kentucky bluegrass – Year 2 \$5,000
11. PI, Company donations to support and fund the Texas Tech Turf Field Day, Multiple company sponsors, \$3,000

2017 (\$17,200)

1. Evaluate possible premix combinations for improved turf quality under normal stress conditions in fairway bermudagrass, Syngenta, \$6,000
2. Effectiveness of seed coating on germination and growth of turf-type tall fescue, Rosen, \$4,000
3. Cool season mix variety trial, Barenbrug, half payment \$3,500
4. PI, Company donations to support and fund the Texas Tech Turf Field Day, Multiple company sponsors, \$3,700

2018 (\$14,533)

1. Annual ryegrass overseed evaluation, Barenbrug, \$3,000
2. Evaluation of wetting agent surfactant on bermudagrass fairways, Aquatrols, \$2,500
3. Kentucky Bluegrass Variety trial at Amarillo Country Club, Pure Seed Testing, \$4,500
4. PI, Company donations to support and fund the Texas Tech Turf Field Day, Multiple company sponsors, \$3,700
5. Evaluation of athletic field conditions for player safety, Sports Turf Managers Association SAFE Foundation, \$2,500 (\$833)

SERVICE TO PROFESSIONAL ORGANIZATIONS

National:

1. Crop Science Society of America (Member since 2009)
 - a. C-5 Division Chris Stiegler Travel Grant Selection Committee (2013)
 - b. C-5 Division Chris Stiegler Travel Grant Selection Committee Chair (2014-2015)
 - c. C-5 Graduate Student Oral Session Moderator (2014)
 - d. C-5 Oral Session Moderator (2015)
 - e. C-5 Division Stiegler Endowment Fundraiser Golf Tournament Committee (2016)
 - f. C-5 Secretary (2017-2019)
 - g. CSSA Grad Student Competition Development Committee (2019)
2. Golf Course Superintendents Association of America (Member since 2003)
 - a. Collected and grew turf weed material for turf bowl exam in San Antonio (2015 & 2018)
 - b. Moderated Agronomic Session on Water Conservation in San Diego (2016)
3. Sports Turf Managers Association (Member since 2014)
 - a. Technical Editor for SportsTurf Magazine (2015-2019)
 - b. Grew turf weeds for student competition in Ft. Worth (2018)

Regional:

1. Southeast Region SERA25: Turf (IEG-16) working group
2. Western Region WERA-11: Turf Research working group

State:

1. Texas Turfgrass Association
 - a. Educational representative on Board (2013-present)
 - b. Educational committee finding speakers for commercial turf mgmt. seminars
 - c. Content update for Certified Professional Turf Manager (CPTM) Exam
2. West Texas Golf Course Superintendents Association (Member since 2013)
 - a. Board member (2013-present)
 - b. Serve on educational committee to develop conference program and speakers
3. Texas Sports Turf Managers Association
 - a. Board member (2014-present)

- b. Hosted field day in West Texas region (2015)

OTHER PROFESSIONAL SERVICE:

CONSULTING ACTIVITIES:

1. Water and turf management plan for city of Lovington, NM (2015)
2. City of Lubbock Water Conservation and Turf Selection (2017)
3. Berl-Huffman Soccer Complex Renovation (2019)

SERVICE TO:

UNIVERSITY:

1. Dean's Representative for Ph.D. Defense of Rachel Jackson, Ag Ed and Comm, 2015
2. Texas Tech STEM-CORE Affiliate (2015-2016)
3. Texas Tech STEM-CORE Member (2017-present)
4. Texas Tech STEM-CORE Outreach Committee (2017-present)
5. Texas Tech Core and Multicultural Curriculum Committee (2017-present)
6. Texas Tech STEM-CORE Director (2018-present)

COLLEGE:

1. CASNR Marketing Committee (2014-2018)
 - a. Assisted with guest speaker for Ag. Awareness week (2015)
 - b. Coordinated daily radio interviews for CASNR Faculty on KFYO during Ag Awareness Week (2015)
 - c. Chair 2016-2018
 - d. Rebranding committee duties to more closely reflect Marketing and Outreach engagement through coordinating video productions
2. CASNR Defining Excellence Committee – PSS Representative (2018-2019)

DEPARTMENT:

1. Conduct and organize Turf and Ornamental Field Day at Quaker Farm (2014-2018)
 - a. Approximately 130 attendees each year
 - b. Graduate students, invited guests, and I provide educational talks and demonstrations.
2. Chair of the Communication/website committee (2015-2018)
 - a. Work with Robby to ensure website materials are updated
 - b. Coordinated weekly radio interviews on KFYO of faculty and grad students (2015)
 - c. Coordinated radio broadcast scripts from faculty for KTTZ Advertising (2017-2018)
3. Serve on the following PSS Committees (2015-present): Curriculum, Distance Education, Awards, Social, and Scholarships
4. Departmental Manuscript Review
 - a. Grubbs, R.A., C.B. McKenney, D.T. Montague, and S.J. Oswalt. Understanding Salinity Tolerance of *Anisacanthus quadrifidus* in a Hydroponics Setting.
5. Guest Lectures
 - a. Dr. Longings Integrated Pest Management Course (2014-2018 even Springs)
 - b. Dr. Sharma's Principles of Horticulture Course (2015)

- c. Dr. Kelly's Freshman/Transfer Course (2016)
- 6. Departmental Search Committees
 - a. Urban Soils (2016)
 - b. Sustainable Vegetable Production (2017)
 - c. Rockwell Professor of Horticulture (2018)

COMMUNITY:

1. Lubbock Arboretum Water-wise Landscape Tour—Turf Expert (2013-2014)
2. Wolfforth Water Expo – Speaker on turf water conservation practices
3. Master Gardener Internship Education 2015, 2016, 2017, and 2019.
4. Christ the King Science Fair projects (middle and high school)
 - a. 2016-2017
 - i. Water conservation product evaluation on established bermudagrass with monthly irrigation (State Science Fair Qualifier)
 - ii. Polymer coated sand to reduce water at establishment of seed or sprigs (State Science Fair Qualifier)
 - b. 2017-2018
 - i. Turf response to surfactants and fertilizers under weekly irrigation (State Science Fair Qualifier)
 - ii. Establishment of bermudagrass sod with polymer coated sand (International Science Fair Qualifier)
 - c. 2018-2019
 - i. Quantifying turf recovery from Jackrabbit damage using fertilizers (State Science Fair Qualifier)
 - ii. Athletic field safety assessment throughout Southern High Plains (International Science Fair Qualifier)
 - iii. Water conservation strategies for greenhouse tomato production (International Science Fair Qualifier and manuscript preparation)
5. Christ the King Science Fair Judge for High School Projects 2017 and 2018
6. Initiated Turf, Ornamental, and Pollinator Field Day in 2017 and continued 2018
 - a. Collaboration with faculty in PSS that conduct research related to homeowner needs
 - b. Attendance doubled from 2017(33) to 2018 (74), and look to continue growth

INDUSTRY:

1. Conduct cooperative research for numerous companies
2. Field day sponsors allowed to show off equipment and promote products

OTHER:

1. Run the Turf Club Fundraiser Golf Tournament at Meadowbrook Golf Club (2013-2016)
2. Distance education demonstration for Sao Paulo visitors to PSS Department
3. Radio (Double T 104.3) and TV (Fox 34) interview on “Tee to Green”
4. Utilize social media platforms to provide outreach to the public and colleagues of research.
5. Initiated radio advertisement on Double T 97.3 Radio and Online Stream to promote our undergraduate turf program to a broader audience