

Luqi Li

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EDUCATION

Doctor of Philosophy Graduation: May 2019
University of Nebraska–Lincoln Major: Agronomy and Horticulture
GPA: 3.88 / 4.00 Dissertation: Management, Ecology, and Genetics of Yellow Nutsedge in Turfgrass

Master of Science Graduation: Dec 2015
University of Nebraska–Lincoln Major: Agronomy
GPA: 3.86 / 4.00 Thesis: Improving Establishment of Seeded Buffalograss

Bachelor of Science Graduation: May 2013
University of Nebraska–Lincoln Major: Turfgrass & Landscape Management
GPA: 3.26 / 4.00

REWARDS AND HONORS

2018 Chris Stiegler Turf Science Student Travel Award and Fellowship Chris Stiegler Travel Award Fund
C5 Turfgrass Science Division of CSSA

Pi Alpha Xi Scholarship National Honor Society for Horticulture
American Society for Horticultural Science

1st Place in Student Oral Competition 13th International Turfgrass Research Conference
July.16-21 2017 New Brunswick, NY

ITRC Student Travel Award 13th International Turfgrass Research Conference
New Brunswick, NY

1st Place in C5 Turfgrass Poster Competition 2014 ASA, CSSA, SSSA Annual Meeting
Long Beach, CA

Pi Alpha Xi Membership National Honor Society for Horticulture
Alpha-Gamma Chapter

Winner of 3-2-1 Quick Pitch Competition 2012 Center for Entrepreneurship CBA
University of Nebraska-Lincoln

TEACHING EXPERIENCE

Distance Education Lecturer

University of Nebraska–Lincoln
Jan 2022 - Current

- Providing high-quality learning experience to students by identifying and developing learning materials and teaching courses.
- Providing individual and group consultations for online course delivery, technologies, and support of online learning in areas of video and simulations.
- Facilitating expansion and development of non-academic online resources, supporting professionals in the plant and landscape systems workforce.
- Selecting and developing assessments and surveys to evaluate extension and professional learners'

progress; and to evaluate online material effectiveness.

- Developing grant collaborations with research and extension colleagues to enhance online course and resource offerings.
- Planning, developing, and implementing science based resources across various plant and landscape systems.
- Engaging with broader scholarly and professional communities.

Postdoctoral Research Associate

University of Nebraska-Lincoln

- TLMT 227 Introductory Turfgrass Management (Online) Fall 2020
- TLMT 229 Introductory Turfgrass Management Laboratory (In Person/Online) Fall 2020 and 2021

Graduate Teaching Assistant

University of Nebraska-Lincoln

- Four lab sections of AGRO 153 Soil Resources Fall 2014
- Two lab sections of AGRO 153 Soil Resources Spring 2015
- Two lab sections of AGRO 366 Soil Nutrient Relationships Spring 2015

Teaching Assistant

University of Nebraska-Lincoln

- TLMT 229 Introductory Turfgrass Management Laboratory (Co-Taught) Fall 2013,14, 15, 16, and 17
- AGRO 366 Soil Nutrient Relationships Spring 2014

RESEARCH EXPERIENCE

Postdoctoral Research Associate

University of Nebraska–Lincoln

July 2019 – Dec 2021

- Using genetic and bioinformatic tools to understand the effects of turfgrass management strategies on the gene expression of yellow nutsedge, providing genetic evidence of the importance of sustainable golf course management, improving resource efficiency and mitigating weed stress.
- Modeling the application of three wetting agents (surfactants) under different irrigation regimes on creeping bentgrass (*Agrostis stolonifera*) greens, improving water use efficiency on golf courses.
- Investigating and quantifying *Azospirillum brasilense* inoculum persistence and effects on microbial communities, reducing nitrogen input while improving soil microbial diversity
- Reviewing and summarizing procedures to measure organic matter of putting green surface, a USGA funded project to produce a literature review of sampling methodology, sample processing and measurement procedures used to quantify and characterize organic matter of soils.
- Evaluating preemergence activity of plant growth regulators on annual bluegrass under field conditions, reducing golf course reliance on pesticide application
- Producing and editing extension videos for an online virtual field day during the COVID-19 pandemic
- Applying for research grants and presenting research findings at professional meetings and extension events
- Teaching turfgrass management class and laboratory, adapting to a hybrid course delivery structure (in person and online) to mitigate the risk of COVID-19 and improving learning efficiency of students

Graduate Research Assistant

University of Nebraska–Lincoln

May 2013 – May 2019

- Evaluating herbicide safety and efficacy of 13 herbicides in seedling buffalograss
- Documenting low-input performance of highland, heat, and drought tolerant bentgrass, a National Turfgrass Evaluation Program (NTEP).
- Determined optimal seeding date of dormant seeding of three cultivars of buffalograss (*Bouteloua dactyloides*), a low-input, drought tolerant turfgrass species.
- Investigated optimal practices for improving dormant seeding successes of Kentucky bluegrass, tall fescue or buffalograss.
- Evaluating the effectiveness of seed treatment and optimal seeding date of ‘Cody’ buffalograss
- Assessing wear tolerance of 104 genotypes, and shade tolerance of 134 genotypes of buffalograss.
- Evaluated herbicide tolerance of established buffalograss, and herbicide safety during green-up.
- Designed genetic markers to assess genetic diversity of yellow nutsedge in the U.S with the collaboration of other Universities and research organizations.
- Conduced field and greenhouse research to evaluate herbicide effects on yellow nutsedge control, tuber formation, viability and capacity to regrow.
- Evaluated the competitiveness and invasiveness of yellow nutsedge in Kentucky bluegrass under different management practices, reducing reliance on pesticide and improving resource use efficiency.
- Presenting research findings at professional meetings and extension events and answering turf related questions from extension audiences.

RESEARCH GRANT

- R.E. Gaussoin and **L. Li**, Principle Investigators. 2020. Evaluation of *Azospirillum brasilense* inoculum persistence and effects on microbial communities. Simplot Turf & Horticulture of San Diego, California.

PEER-REVIEWED PUBLICATIONS

- **Li, L.**, M.D. Sousek, R.E. Gaussoin, and Z.J. Reicher. 2021. Strategies for increased yellow nutsedge (*Cyperus esculentus*) control in turfgrass with halosulfuron, sulfentrazone and physical removal. Weed Technology. doi: 10.1017/wet.2021.43
- **Li, L.**, E. Chestnut, M. Carlson, W. Kreuser, and R. Gaussoin. 2020. Field evaluation of preemergence activity of plant growth regulators on annual bluegrass. Crop, Forage and Turfgrass Management. doi: 10.1002/cft2.20073
- **Li, L.**, M.D. Sousek, R.E. Gaussoin, and Z.J. Reicher. 2019. Herbicide Timing and Mode of Action Affect Yellow Nutsedge Control in Turfgrass. Crop, Forage and Turfgrass Management. doi: 10.2134/cftm2019.08.0065
- **Li, L.**, M.D. Sousek, K. Amundsen, and Z.J. Reicher. 2018. Buffalograss exhibits adequate turf tolerance to postemergence herbicides applied during or shortly after greenup. Crop, Forage and Turfgrass Management. doi: 10.2134/cftm2017.09.0064
- **Li, L.**, M.D. Sousek, K. Amundsen, and Z.J. Reicher. 2017. Herbicide tolerance of established buffalograss. Crop, Forage and Turfgrass Management. doi: cftm2016.10.0065
- Amundsen K., **L. Li**, R.C. Shearman and R.E. Gaussoin. 2017. Addressing misperceptions regarding buffalograss tolerance to sandy soils, traffic, and shade. International Turfgrass Society Research Journal. doi: 10.2134/itsrj2016.05.0347
- **Li, L.**, M.D. Sousek, K.L. Amundsen, and Z.J. Reicher. 2016. Seeding date and seed treatment affects success of dormant-seeded buffalograss. Agronomy Journal. doi: 10.2134/agronj2016.03.0164
- **Li, L.**, M.D. Sousek, K. Amundsen, and Z.J. Reicher. 2016. Cultivar, seeding date or seeding rate have

little effect on success of dormant seeded buffalograss. HortSci, 51(6):750-753.

- **Li, L.**, M.D. Sousek, and Z.J. Reicher. 2015. Herbicides applied at or shortly after seeding are effective for weed control in seeding buffalograss. Crop, Forage and Turfgrass Management. doi: 10.2134/cftm2015.0150.

PUBLICATIONS IN PREPERATION

- **Li, L.** and R.E. Gaussoin. Interference between Kentucky bluegrass (*Poa pratensis*) and yellow nutsedge (*Cyperus esculentus*) in a home lawn. Weed Science.
- **Li, L.**, K. Amundsen, and R.E. Gaussoin. Genetic variability in yellow nutsedge (*Cyperus esculentus* L.). Weed Science.

NON- PEER-REVIEWED PUBLICATION

- **Li, L.** and Z.J. Reicher. 2015. Evaluating the latest developed buffalograss cultivar: Sundancer. Center for Grassland Studies, University of Nebraska-Lincoln. Vol 21:1 p 4-7.
- **Li, L.** R. Gaussoin and Z. J. Reicher. 2017. Super Science: Managing unmellow yellow nutsedge. Online. Golfdom. <http://www.golfdom.com/super-science-managing-unmellow-yellow-nutsedge/>

PRESENTATIONS

- **Li, L.** 2019. Genetic variability in yellow nutsedge (*Cyperus esculentus* L.). 2019 ASA, CSSA International Annual Meeting.
- **Li, L.** 2018. Interference between Kentucky bluegrass (*Poa pratensis*) and yellow nutsedge (*Cyperus esculentus*) in a home lawn. 2018 ASA, CSSA International Annual Meeting
- **Li, L.** 2018. Yellow nutsedge ecology – What happened a year after the invasion? UNL Turf Field Day. Lincoln, NE
- **Li, L.** 2017. Strategies for Increased Yellow Nutsedge (*Cyperus esculentus* L.) Control with Halosulfuron and Sulfentrazone. 2017 ASA, CSSA, SSSA International Annual Meeting
- **Li, L.** 2017. Competition between Yellow nutsedge and Kentucky bluegrass in home lawn. UNL Turf Field Day. Lincoln, NE
- **Li, L.** 2017. Seeding Date and Seed Treatment Affects Success of Dormant-seeded Buffalograss. 13th International Turfgrass Research Conference. 2017. New Brunswick, NY
- **Li, L.** 2017. Yellow Nutsedge: What we know and what we don't know. 2017 Nebraska Turf Conference. LaVista, NE
- **Li, L.** and M.D. Sousek. 2017. Weed 101. USGA Certified Session. 2017 Nebraska Turf Conference. LaVista, NE
- **Li, L.** 2016. Strategies for Increased Yellow Nutsedge (*Cyperus esculentus* L.) Control with Halosulfuron and Sulfentrazone. 2016 ASA, CSSA, SSSA International Annual Meeting.
- **Li, L.** 2016. What's that Weed, Introduction of Weed Garden. UNL Turf Field Day. Lincoln, NE
- **Li, L.** and M.D. Sousek. 2016. Weed 101. USGA Certified Session. 2016 Nebraska Turf Conference. LaVista, NE.
- **Li, L.** 2015. Seeding Date and Seed Treatment Affects Success of Dormant-seeded Buffalograss. 2015 ASA, CSSA, SSSA International Annual Meeting.
- **Li, L.** 2015. Yellow nutsedge control strategy. UNL Turf Field Day. Mead, NE.
- **Li, L.** and M.D. Sousek. 2015. How's and Why's or Why Not's of Dormant Seedings. Nebraska Turf Conference. LaVista, NE.
- **Li, L.** 2014. Seeding Date and Seed Treatment Affects Success of Dormant-seeded Buffalograss. 2014

ASA, CSSA, SSSA International Annual Meeting.

- **Li, L.** 2014. Maximizing Success of Dormant Seeding. UNL Turf Field Day. Mead, NE.
- **Li, L.** and K. Amundsen. 2014. Herbicide Safety and Efficacy over Two Cultivars of Seedling Buffalograss. Nebraska Turf Conference. LaVista, NE.
- **Li, L.** 2014. Improving Establishment of Seeded Buffalograss. Native Turfgrass Group Buffalograss Breeding and Development Research Update. Lincoln, NE.
- **Li, L.** and Z.J Reicher. 2013. Maximizing Success of Dormant Seeding. UNL Turf Field Day. Mead, NE.

INTERNSHIP EXPERIENCE

Turfgrass Management Intern

Mahoney Golf Course, Lincoln, Nebraska

May – August 2011

- Maintaining creeping bentgrass greens, Kentucky bluegrass & perennial ryegrass fairways, tees
- Participating in bunker construction projects and sod installation
- Diagnosing and repairing leaking irrigation system
- Preparing course for Nebraska Governor golf tournament

Turfgrass Management Intern

Desert Mountain Club, Scottsdale, Arizona

May – August 2012

- Maintain creeping bentgrass greens, bermudagrass & perennial ryegrass fairways, tees
- Managed crews, irrigation, and budget as assistant superintendent
- Installing and servicing sprinkler heads
- Designed experiment and tested new chemical product
- Participated in greens aerification and topdressing on two distinct courses within the facility

LABORATORY TECHNIQUES

- Plant DNA and RNA extraction
- Soil microbial DNA extraction
- Gel electrophoresis
- Polymerase chain reaction (PCR) and quantitative PCR (qPCR)
- Amplified fragment length polymorphism (AFLP)

ANALYTICAL SOFTWARE

- Statistical Analysis System (SAS)
- R programming language
- Linux for Bioinformatics
- Agricultural Research Management (ARM)

OTHER EXPERIENCE

- Advisor of Pi Alpha Xi, Alpha-Gamma Chapter (April 2021 – Current), mentoring students within the organization on course selection, community services, student events, fundraising, and internship opportunities.

- Secretary treasurer of Pi Alpha Xi, Alpha-Gamma Chapter (April 2015 to April 2021), keeping financial accounts, record of all members of the Honor Society, record of the minutes of meetings, conducting meetings, and updating constitution of the chapter.
- Member of the Agronomy and Horticulture seminar committee 2021-2023.
- Served as certified search committee for recurring Facilities Operator/Turf Farm Manager, Program Coordinator I, Research Technologist I and II positions at the University of Nebraska-Lincoln

LANGUAGES

- Chinese (Mandarin), Native Proficiency
- English, Full Professional Proficiency
- Japanese, Elementary Proficiency