

Turner Spratling

University of Georgia Department of Plant Pathology- PhD Candidate

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Education

The University of Georgia
Master of Plant Protection and Pest Management (M.P.P.P.M)
GPA: 4.0/4.0 *Summa Cum Laude*

Athens, GA
December 2018

The University of Georgia
Bachelor of Science in Agriculture (B.S.A)
Major: Agriscience and Environmental Systems
GPA: 3.69/4.00 *Cum Laude*

Athens, GA
May 2017

Current Research Interests

turfgrass pathology, sustainable management of dollar spot disease in turfgrass, genetic diversity of dollar spot pathogens

Work and Research Experience

UGA College of Agricultural and Environmental Sciences Plant Pathology Department

Griffin, GA

Graduate Research Assistant (PhD)

August 2020-Present

- Partnering with professors, lab colleagues, and private enterprises to explore sustainable strategies for managing dollar spot disease
- Directing and honing expertise in overseeing trials across field, laboratory, and greenhouse environments to meet research objectives
- Conducting in-depth data analysis to derive actionable insights for optimizing dollar spot disease control strategies

United States Golf Association Green Section

Southeastern, U.S.

Intern

August 2022

- One of 6 students in the country selected to serve as an intern with the USGA Green Section in 2022
- Accompanied a USGA Green Section agronomist on consulting visits to various golf courses throughout the Southeast, gaining hands-on experience in providing agronomic recommendations and solutions to improve golf course conditions
- Gained valuable experience and insight on aspects of golf course operations including turfgrass maintenance, budget oversight, labor management and more

UGA Cooperative Extension

Brunswick, GA

Agriculture and Natural Resources Extension Agent- Glynn County

January 2019-July 2020

- Developed and delivered educational programs to the people of Glynn County on topics regarding crop production, pest management, natural resource conservation, and more
- Served as an expert consultant to county officials, producers, and residents in making decisions related to agriculture
- Collaborated with university specialists to conduct statewide research projects related to various aspects of plant cultivation and pest control
- Demonstrated strong communication skills and flexibility in day-to-day responsibilities, as requests from clientele occurred frequently and varied extensively

UGA College of Agricultural and Environmental Sciences Entomology Department

Athens, GA

Graduate Assistant (M.P.P.P.M)

Fall 2017-Fall 2018

- Developed and executed initiatives focused on enhancing educational outreach for Georgia's Pesticide Safety Education Program, while also conducting research trials
- Authored two category manuals for Georgia's Pesticide Safety Education Program that serve as authoritative references for commercial pesticide applicators in specific fields

- Partnered with university professors to revitalize educational content related to pesticide application, safety protocols, and ethical responsibilities

University of Georgia Athletic Association

Athens, GA

Grounds Crew

August 2014-August 2017

- Helped maintain over 10 athletic fields for University of Georgia athletic events, making sure they were safe and playable for competitors
- Operated a wide range of equipment required to keep athletic fields in exceptional condition, including mowers, tractors, paint sprayers, and more
- Demonstrated ability to work effectively and efficiently under pressure, ensuring athletic fields met the highest visual standards while meeting the demands of tight team schedules

Georgia Seed Development Commission and Georgia Crop Improvement Association

Athens, GA

Intern

Summer 2016

- Helped meet the needs of agricultural and horticultural markets by marketing and propagating seed and plant materials of new cultivars that were higher yielding and disease resistant
- Collaborated with plant breeders and commercial companies to support the genetic purity and commercialization of new plant cultivars
- Gained experience working with a wide variety of crops including turfgrass, wheat, soybean, peanuts, forages, and rye

UGA Institute of Plant Breeding, Genetics, and Genomics

Athens, GA

Student Worker

August 2015-December 2015

- Conducted precise handling of forage seeds and plants in both laboratory and greenhouse settings to uphold research precision and credibility
- Contributed to the curation and selection of high-quality forage varieties for integration into the competitive agricultural market
- Demonstrated dedication through extensive fieldwork in planting and gathering substantial quantities of high-quality forage samples

Publications

1. Peer-Reviewed Scientific Publications:
 - a. **Spratling W. T.**, Sapkota S., Vermeer B. C., Mallard J., Ali E., Martinez-Espinoza A.D., & Bahri B.A. First Report of Gray Leaf Spot Caused by *Pyricularia oryzae* (synonym: *Magnaporthe oryzae*) in Oat (*Avena sativa*) in Georgia, USA. *Plant Disease* (2021).
 - b. Bahri B.A., Parvathaneni R.K., **Spratling W.T.**, Sapkota S., Raymer P.L., Martinez-Espinoza A.D. Whole Genome Sequencing of *Clariireedia* aff. *paspali* Reveals Potential Pathogenesis Factors in *Clariireedia* Species, Causal Agents of Dollar Spot in Turfgrass. *Frontiers in Genetics* (2022).
 - c. Ghimire B., Aktaruzzaman M., Chowdhury S.R., **Spratling W.T.**, Vermeer C.B., Buck J.W., Martinez-Espinoza A.D., & Bahri B. A. Sensitivity of *Clariireedia* spp. to Benzimidazoles and Dimethyl Inhibitors Fungicides and Efficacy of Biofungicides on Dollar Spot of Warm Season Turfgrass. *Frontiers in Plant Science* (2023).
2. Abstracts:
 - a. **Spratling W. T.**, Martinez-Espinoza A.D., & Bahri B. A. Effectiveness of Gaseous Nanobubble Water in Controlling Dollar Spot in Seashore Paspalum. *APS Plant Health Annual Meeting* (2022).
 - b. Willis M.J., **Spratling W. T.**, Momin A., Thompson B., Vermeer B. C., Martinez-Espinoza A.D., Bahri B.A. Temperature and Host Preference of *Clariireedia* Species, Causal Agent of Dollar Spot on Turfgrass. *APS Plant Health Annual Meeting* (2022).
 - c. Bahri B.A., Parvathaneni R.K., **Spratling W. T.**, Saxena H., Sapkota S., Raymer P.L., Martinez-Espinoza A.D. Variability in Potential Pathogenesis Factors within *Clariireedia* Species, Causal Agents of Dollar Spot in Turfgrass. *APS Plant Health Annual Meeting* (2023).

Published Extension Bulletins

1. *Aquatic Pest Management Category Manual* (with Milton Taylor). Commercial Pesticide Applicator's Safety Guide developed in cooperation with UGA Cooperative Extension and the Georgia Department of Agriculture. 2017.
2. *Agricultural Plant Pest Control Category Manual* (with Milton Taylor and Jacob Wolf). Commercial Pesticide Applicator's Safety Guide developed in cooperation with UGA Cooperative Extension and the Georgia Department of Agriculture. 2017.

Teaching Roles

1. Teaching Assistant- PATH 6280 Diagnosis and Management of Plant Diseases, Fall 2021
2. Teaching Assistant- PATH 3010 Fungi Friends and Foes, Spring 2023

Speaking Events

1. Invited speaker. *Summer Turfgrass Management*. Georgia Master Gardener Extension Volunteers Thoughtful Thursdays Seminar Series. June 10, 2021.
2. Invited Speaker. *Georgia Turfgrass Disease Update 2022*. Georgia Green Industry Association Wintergreen Conference. June 23, 2022, Atlanta, GA.
3. Speaker. *UV-c light and drone remote sensing project demonstration*. University of Georgia Turfgrass Field Day. August 3, 2022, Griffin, GA.
4. Speaker. *UV-C light effects on dollar spot suppression in vitro*. University of Georgia Turfgrass Field Day. August 3, 2022, Griffin, GA.
5. Invited speaker. *Fall and Spring Turfgrass Disease Management Activities*. Dougherty County Extension Professional Landscape Update. November 10, 2022, Albany, GA.
6. Invited speaker. *Bermudagrass Disease Management*. Georgia Recreation and Park Association Management and Maintenance School. February 23, 2023, Griffin, GA.
7. Guest Lecturer. *Foliar Diseases of Turfgrass*. Turfgrass Pest Management (UGA Course- PATH 3500). April 13, 2023, Athens, GA.
8. Invited Speaker. *Diagnosing Turfgrass Pathogens*. UGA Green University. September 15, 2023, Griffin, GA.

Poster Presentations

1. **Spratling W.T.**, Martinez-Espinoza A.D., Bahri B.A. Effectiveness of Gaseous Nanobubble Water in Controlling Dollar Spot in Seashore Paspalum. Georgia Association of Plant Pathologists Meeting, May 24-25th, 2022, Savannah, GA.
2. **Spratling W.T.**, Martinez-Espinoza A.D., Bahri B.A. Effectiveness of Gaseous Nanobubble Water in Controlling Dollar Spot in Seashore Paspalum (Updated). American Phytopathological Society Plant Health Meeting, August 6, 2022, Pittsburgh, PA.
3. **Spratling W.T.**, Raymer P.L., Martinez-Espinoza A.D., Bahri B.A. Effects of UV-c light on dollar spot suppression and turf quality in seashore paspalum. University of Georgia Plant Center Retreat, December 15-16th, 2021, Brasstown Valley Resort, Young Harris, GA.
4. Willis M.J., **Spratling W.T.**, Momin A., Thompson B., Vermeer C.B., Martinez-Espinoza A.D., Bahri B.A. Temperature and host preference of *Clarireedia* species, causal agent of dollar spot on turfgrass. Georgia Association of Plant Pathologists Meeting, May 24-25th, 2022, Savannah, GA.
5. Saxena H., Willis M.J., **Spratling W.T.**, Bagwell J.W., Vermeer C.B., Raymer P.L., Martinez-Espinoza A.D., Bahri B.A. Emergence of two new fungal diseases on tall fescue in Georgia. American Phytopathological Society Plant Health Meeting, August 6, 2022, Pittsburgh, PA.
6. Saxena H., Parvathaneni R.K., **Spratling W.T.**, Raymer P.L., Martinez-Espinoza A.D., Bahri B.A. In silico structural and functional characterization of six potential virulence genes identified in *Clarireedia* spp. University of Georgia Plant Center Retreat, December 15-16th, 2021, Brasstown Valley Resort, Young Harris, GA.
7. Bahri B.A., Parvathaneni R.K., **Spratling W.T.**, Saxena H., Sapkota S., Raymer P.L., Martinez-Espinoza, A.D. Variability in Potential Pathogenesis Factors within *Clarireedia* Species, Causal Agents of Dollar Spot in Turfgrass. American Phytopathological Society Plant Health Meeting, August 12, 2023, Denver, CO.

Grants and Scholarships Received

1. University of Georgia Graduate School Summer Research Grant
 - Amount Awarded: \$1500
 - Agency: University of Georgia Graduate School
 - Project Title: Effectiveness of Ozone Nanobubbles in Controlling Dollar Spot
 - Award Period: April 15, 2021-June 30, 2021
2. Plant Center Doctoral Dissertation Improvement Grant
 - Amount Awarded: \$5000
 - Agency: University of Georgia Plant Center
 - Project Title: Development of Species-Specific Primers for Clarireedia Pathogens, Etiological Agents of Dollar Spot in Turfgrass
 - Award Period: Jan.4, 2022-June 30, 2022
3. Fonseca Scholarship (2022)
 - Awarded to students who distinguish themselves through outstanding academic achievement and personal excellence in the field of Horticulture or closely related field
 - Amount Awarded: \$1000
 - Agency: University of Georgia Griffin Campus
4. Georgia Seed Association Scholarship (2023)
 - Awarded to graduate students who intend on pursuing a career in the seed industry or related field and display exceptional academic ability and impactful community involvement
 - Amount Awarded: \$2000
 - Agency: The Georgia Seed Association

Professional Affiliations and Other Service

1. American Phytopathological Society Member
2. American Phytopathological Society Turfgrass Pathology Committee Member
3. Georgia Golf Course Superintendents Association Member
4. Georgia Green Industry Association Member
5. University of Georgia Society of Aspiring Plant Pathologists (SAPPs) Member and Student Liaison for the UGA Griffin Campus (2022-present)
 - Serve as the primary spokesperson and event coordinator for UGA Griffin SAPPs members
6. UGA Griffin Campus Ambassador (2023-present)
 - One of ten students designated as official hosts and goodwill ambassadors for the UGA Griffin Campus
7. Student mentor with the STEM Academy at Pike County High School (Summer 2021, 2022, and 2023)
 - Guide students through their summer internships at the UGA Griffin Campus to support them in completing multiple research projects in both field and laboratory settings