

Sharon Badilla Arias

E-mail: sharonbadillaarias@gmail.com

Phone number: (515)598 6616

Education

- Ph.D. student in Plant pathology and Microbiology 2020-present
Iowa State University, Iowa, U.S.A.
Management options of the bacterial pathogens *Erwinia tracheiphila* and *Serratia marcescens*.
Advisors: Dr. Mark Gleason and Dr. Gwyn Beattie Ames
- Licenciatura in Agronomy 2019
University of Costa Rica, San José, Costa Rica
Plant growth-promoting rhizobacteria as biological inputs in sugar cane
Advisor: Dr. Lidieth Uribe
- BS in Agronomy 2018
University of Costa Rica, San José, Costa Rica.

Research

- Graduate Assistant-Research 2020-present
Iowa State University, Ames, IA, U.S.A.
 - Studied mesotunnel optimization in acorn squash and muskmelon in terms of pollination and weed control in organic systems under field conditions.
 - Screened for bacterial agents and bacteriophages as biocontrol agents of *Erwinia tracheiphila* in controlled conditions.
- Licenciatura Research- Assistant 2018-2019
University of Costa Rica, San José, Costa Rica
 - Soil inoculation of bacterial ferments on sugarcane seedlings on greenhouse conditions
- Summer Research Internship May-September 2019
Iowa State University, Ames, IA, U.S.A.
 - Optimize mesotunnel systems for sustainable production of muskmelon
- Laboratory Assistant in the Soil Microbiology 2017-2019
Centro de Investigaciones Agronómicas, University of Costa Rica, San José, Costa Rica

Teaching

- Teaching assistant in Principles of plant pathology Spring 2023
Iowa State University, Ames, IA, U.S.A.

- Teaching assistant in Agroecology course (~40 undergraduates) August-December 2016
School of Agronomy, University of Costa Rica, San José, Costa Rica

Work experience

- Professional internship at Ticoplant August-December 2017
Alajuela, Costa Rica.
 - Applied research to improve plant fertility and rooting stimulation.
- Laboratory Assistant in Plant Disease Clinic 2016-2017
Plant disease clinic (CIPROC), University of Costa Rica, San José, Costa Rica
 - Samples for diagnosis by the clinic diagnosticians.

Publications / Presentations

Peer reviewed:

- Nelson, H.M., González-Acuña, J., Nair, A., Cheng, N., Mphande, K., **Badilla-Arias, S.**, Zhang, W., & Gleason, M. L. 2023. Comparison of Row Cover Systems for Pest Management in Organic Muskmelon in Iowa, *HortTechnology*, 33(1), 103-110.

Poster presentations:

- Screening for biocontrol agents of cucurbit bacterial wilt of muskmelon. **Badilla, S.** Gleason, M. Beattie, G. October 2022
82ND Annual Meeting, AMS North Central branch, Grinnell
- Screening for biocontrol agents of cucurbit bacterial wilt of muskmelon. **Badilla, S.** Gleason, M. Beattie, G. August 2022
Plant Health, APS, Pittsburg
- Optimizing pollination of organic acorn squash in mesotunnels in Iowa. **Badilla, S.** Beattie, G. Gleason, M. August 2022
Plant Health, APS, Pittsburg

Outreach

- Practical Farmers of Iowa presentation for spanish-speaker farmers: March 2022
“Optimización de polinización y manejo de malezas bajo mesotuneles” / “Pollination & Weed Management Optimization Under Mesotunnels”
<https://practicalfarmers.org/events/farminars/2022-winter-farminar-series/>
- Blog in Current cucurbit website: Badilla, S. Do’s and don’ts when using mesotunnels in commercial organic acorn squash production.
<https://www.cucurbit.plantpath.iastate.edu/post/optimizing-weed-control-under-mesotunnel-systems-iowa-states-2020-experience-acorn-squash>

Grants

2021

- **Badilla, S.** Gleason, M. Managing teff as a living mulch for organic acorn squash in mesotunnel systems.

Source: NCR-SARE (Graduate student)

Amount: \$14,962

Professional Affiliations

- American Phytopathological Society (APS). Since 2020

Languages

- Spanish: Native language.
- English: Fluent in spoken and written English

References

Dr. Mark Gleason

Plant pathology, microbiology and entomology department: Iowa State University

mgleason@iastate.edu

+1 515 294 0579

Dr. Gwyn Beattie

Plant pathology, microbiology and entomology department: Iowa State University

gbeattie@iastate.edu

+1 515 294 5571

Dr. Lidieth Uribe Lorío

Soil agricultural microbiology laboratory-CIA: University of Costa Rica

lidieth.uribe@ucr.ac.cr

+506 2511 20 77