

ALEXANDRA L. STARKEY

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EDUCATION

Ph.D. Student, Plant Pathology 2022 - Current

Iowa State University | Ames, IA

Advising professor: Dr. Leonor Leandro

Research Topic: Essential oils as bio-fungicide treatment for fungal diseases of soybean

B.S., Biology 2019 - 2021

Iowa State University | Ames, IA

Honors: *magna cum laude* (GPA: 3.82)

Other Institutions:

Drake University | Des Moines, IA

Macalester College | St. Paul, MN

TEACHING EXPERIENCE

Graduate Teaching Assistant Fall 2022

Principles of Mycology (MICRO 456) | Iowa State University

- Supported professor in the instruction of students in upper-level biology and microbiology topics
- Contributed to the assessment of students through grading and providing feedback to facilitate student understanding of the subject
- Presented concepts and demonstrated technical skills to students in the lab setting to assist in student learning
- Performed set-up of experiments for students including preparation of fungal cultures

Undergraduate Teaching Assistant Spring 2021

Introduction to Microbiology Laboratory (MICRO 302L) | Iowa State University

- Supported teaching staff in instructing students in basic microbiology laboratory techniques

RESEARCH EXPERIENCE

Graduate Research Assistant 2022 - Current

Major Professor: Dr. Leonor F. Leandro | Iowa State University

- Research and conduct laboratory and greenhouse experiments with fungal pathogens of soybean to assess efficacy of essential oils as a biocontrol agent

PROFESSIONAL EXPERIENCE

- ISU Veterinary Diagnostic Lab** 2022
Diagnostic Associate I | Clinical Microbiology *Ames, IA*
- Performed microbiological techniques including culturing animal tissues and other specimens to media to identify animal pathogens and appropriate antimicrobial treatment
- Eurofins Nutritional Analysis Center** 2022
Laboratory Technician II | Water Soluble Vitamins *Des Moines, IA*
- Used microbial-based methodologies to determine concentrations of water-soluble vitamins in samples and report accurate data to clients for use in industry applications

PUBLICATIONS AND PRESENTATIONS

Starkey, A., Li, C., Silva, V., Leandro, L. “Testing the Efficacy of Essential Oils on the Inhibition of Mycelial Growth and Spore Germination of *Fusarium virguliforme*” *Phytopathology*, 112(11S), Nov 2022.

Related Presentations:

- Starkey, A., Li, C., Silva, V., Leandro, L.** “Testing the Efficacy of Essential Oils on the Inhibition of Mycelial Growth and Spore Germination of *Fusarium virguliforme*”
- Graduate and Professional Student Senate Conference* | Iowa State University 2023
 - Interdepartmental Microbiology Retreat* | Iowa State University 2023
 - C-CHANGE Scholars Symposium* | Iowa State University 2023
 - American Phytopathological Society Annual Meeting* | Pittsburg, PA 2022

AWARDS

- Innovation in Agriculture Young Scholar Award* | Iowa State University Mar 2023
- Dean’s List* | Iowa State University 2019 - 2021

PROFESSIONAL AND ACADEMIC MEMBERSHIPS

- Member* | American Phytopathological Society 2022 - Current
- Plant Pathology Graduate Student Representative* | Curriculum Committee 2023 - Current
- Member* | Kappa Kappa Gamma, Gamma Theta Chapter 2013 - Current

COMMUNITY INVOLVEMENT

- Iowa Wild-Harvested Mushroom Certification Course* | Iowa State Extension 2023
- Iowa Master Gardeners Plant Pathology Instructor* | Iowa State Extension 2023