**IMAS MASTER Academic Year 2023 - 2024**

**Proposal of M1 or M2 Internship**

**PROJECT TITLE AND SUMMARY:** **Can disease resistance limit seedling transmission of bacterial diseases of tomato in greenhouse production?**

This internship is part of a broader project to define bacterial pathogen transmission in tomato production systems. The intern will study transmission of bacterial spot *Xanthomonas* pathogens of processing tomato seedlings and will define the impact of tomato resistance and susceptibility varieties on pathogen and microbiome spread.

**HOST UNIT:**

The Emerging Infectious Disease Ecology Laboratory (TEIDEL), The Ohio State University, Columbus, OH, USA

**MAIN ACTIVITIES:**

This student will set up a greenhouse seedling project comparing two processing tomato varieties (susceptible vs. resistant) and track bacterial movement in the seedling system over time. This project will be directly supervised by a senior TEIDEL team member, and this individual will be expected to clearly prepare, setup, carry out and document experiments. Specific experimental tests will include plant cultivation, disease evaluation and rating, bacterial culturing and potentially microbiome analysis depending on expertise. This student will be expected to gather and analyze data and present regularly in one-on-one and group meetings.

**EXPECTED SKILLS:**

5 years of higher education (engineer or master's degree), with experience in biology, microbiology, plant science or a related field. This individual will need strong organizational and project management skills. Clear success will include strong work ethic, autonomy, personal initiative, organizational, technical and interpersonal skills and willingness to critically think about agricultural problems.

**CONTACT:**

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Organization:

Location: Columbus, OH, USA

Duration: 3 (M1) or 6 (M2) months

Dates: March 2023 to July 2023 (M1); January 2023 to July 2023 (M2)

Level: Master 1 or 2

Internship profile: Research