

# Caroline Sechler

North Carolina State University • Raleigh, NC

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Driven graduate student at NC State University with a strong foundation in plant biology, microbiology, and expanding expertise in molecular biotechnology. Hands-on experience in greenhouse operations, wet lab techniques, and microbiology workflows—including DNA cloning, bacterial culture, and growth curve generation. Currently developing skills in market analysis and industry consulting to effectively bridge scientific innovation with commercial strategy.

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## **SKILLS**

- Tissue culture
- Aseptic technique
- Communication
- Greenhouse cultivation
- BSL2 training
- Teamwork
- qPCR
- Data visualization
- Organization

## **EDUCATION**

**North Carolina State University | Raleigh, NC**

**Fall 2024 - expected Spring 2026**

Master of Microbial Biotechnology

3.984 / 4.0 GPA

*Relevant Coursework:* Biology of Plant Pathogens, Core Technologies in Molecular and Cellular Biology, RNA Interference and Model Organisms, Intro to Plant Biotechnology

**North Carolina State University | Raleigh, NC**

**Fall 2019 - Spring 2023**

B.S. in Plant Biology, Minor in Environmental Science

3.653 / 4.0 GPA Magna Cum Laude

Dean's List 6 Semesters

*Relevant Coursework:* Plant Biology, Plant Physiology, Plant Breeding, Soil Science, Molecular Genetics

## **RELEVANT WORK EXPERIENCE**

**Microbiology Intern, Ocean Spray Cranberries**

June 2025 - August 2025

- Designed and conducted an experiment involving spoilage progression in shelf-stable juices
- Ran and analyzed HPLC assays to develop a curve of toxin production over time
- Presented methods, data, and conclusions to the FSQA group at OSC

**Temporary Research Technician, USDA-ARS in affiliation with NCSU Food Science**

July 2024 - April 2025

- Assisted in proprietary research on preventing spoilage bacteria in commercial shelf-stable pickle jars
- Safely developed bacteria cultures for long-term storage in a BSL2 lab

**Temporary Research Technician, NCSU in affiliation with the USDA-ARS Eastern Small Grains Genotyping Lab**

May 2023 - July 2024

- Optimized a high throughput doubled haploid protocol (wide-cross hybridization method)
- Conducted field work and informed selections with general small grains at a USDA-ARS / NCSU field-site

**Student Lab Technician, NCSU in affiliation with the USDA-ARS Eastern Small Grains Genotyping Lab**

March 2022 - May 2023

- Cultivated and maintained wheat and corn in a greenhouse and growth chamber setting
- Mastered emasculation, pollination, and embryo rescue of winter wheat to make haploid plants