

Research Proposal
OREGON DEPARTMENT OF AGRICULTURE
OAN NURSERY RESEARCH COMMITTEE

Principal Investigator:

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Title: Oregon State University North Willamette Research and Extension Center Plant Pathology Internship

BACKGROUND

Hands-on experience is a critical component to success in any career field. Unfortunately, the COVID-19 pandemic has decimated many opportunities for students to receive experience in laboratories or even in the field. While there is some recovery, students lost at least one year of in-person classes and laboratory activities. At the North Willamette Research and Extension Center, the Healthy Plants and Bilingual Education program is immersed in multiple areas including plant diagnosis and disease management, pesticide efficacy trials, nursery pond recycling water ecology and cyanobacteria isolation and characterization. This multifaceted program is well-suited to provide an intern with a rich and diverse in-person experience.

This novel internship program will involve a competitive application process, where students should demonstrate a commitment to agriculture and a desire to gain new skills, such as critical thinking, experimental design, data collection, data entry and analysis, and report writing. We will ask applicants to describe an idea they have for an independent study in plant health. Specifically, we are currently researching topics related to boxwood blight management, plant disease control with UV light, and the biofertilizer potential of cyanobacteria from nursery pond retention water. The intern's project can be conducted at NWREC or in collaboration with other faculty on the Oregon State University main campus. During the internship period, the intern will interact with both faculty and industry professionals. They will develop valuable skills both in the laboratory and in the field.

The independent research/extension project will be a key skill-building part of the internship. Interns will be able to focus on a specific topic of interest while receiving guidance and mentorship from the PI and collaborators. We firmly believe that by taking charge of their own project, interns will gain a more thorough understanding of the scientific process, from the inception of an idea through the data analysis and report writing. At the conclusion of the internship, we will request that the intern write a summary of the project and results. In addition, to provide public speaking practice, the intern will also present a summary at a NWREC faculty and staff meeting. The stories and projects of previous interns at NWREC have even been featured in the *Digger Magazine*!

For this internship, we will be seeking a top-achieving motivated student who is studying horticulture, plant science, or plant pathology and is from a university or college in the United States. The intern hired on OAN/ODA grant funds will work for 3 to 4 months during the summer of 2022.

OBJECTIVES

1. To provide a student with plant science education and laboratory training that will help prepare them for a career in the nursery industry and beyond.
2. To further the plant pathology research efforts at Oregon State University.

METHODS AND TIMELINE

Fall/Winter 2021. Develop position announcement and distribute to universities and colleges throughout North America that have horticulture/plant science programs.

Spring 2022. Screen applicants and conduct interviews. Select candidate.

Summer 2022. Schedule will reflect the following division of work hours:

- 60% Assist in research projects including set up, plant maintenance, and data collection.
- 40% Pursuit of student research/extension project. Select a project of interest and work with NWREC or Corvallis- based faculty to establish a study.

Fall/Winter 2022. Program review and accomplishment reporting.

BENEFIT TO NURSERY INDUSTRY

Students who engage in research at the North Willamette Research and Extension Center are essential in allowing studies to be performed in a timely and efficient manner. This research, in turn, will be disseminated to the industry, benefiting growers and stakeholders. Interns will also gain hands-on experience and education benefiting the industry when they join the workforce.

BUDGET SUMMARY

Intern(s) -approx. 3 months full-time at \$15/hr.	\$ 7,200
Other Payroll Expenses (Intern)	\$ 700
Salary- Supervisor (0.06 FTE)	\$ 5,669
Other Payroll Expenses (OPE)	\$ 2,536
Materials and supplies	\$ 600
<u>Travel for research and education</u>	<u>\$ 300</u>
Total	\$17,005