Oregon Department of Agriculture and Oregon Association of Nurseries

Nursery Research Grant Proposal 2026

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TITLE: Corvallis Nursery Internship Program

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BACKGROUND: There is a need for more students to enter the nursery industry than we are yielding from current programs. It is unclear why students are not choosing the nursery industry, but we believe that a more targeted approach can prove successful. We have personally observed that students who may not have shown interest in the industry prior to a job or internship found the experience rewarding and later opted for a career in the nursery industry.

We propose to expand undergraduate training by establishing a new internship program in Corvallis. This program will complement—rather than replace—the nursery internship program at NWREC, which is being developed in collaboration with Dr. Nackley. By building a "critical mass" of students trained across multiple aspects of the nursery industry—including cultivar development, propagation, production, weed management, and landscape use—we aim to foster broader engagement and attract more students beyond the relatively small number currently involved.

Similarly, we do not intend for this program to replace other opportunities being pursued by Drs. Contreras, Moretti, and Kowalewski through the Nursery Grants Program. Instead, it represents an additional pathway that will benefit both students and the industry by providing paid, hands-on internship experiences that prepare participants to become future leaders in Oregon's nursery sector. Importantly, these students are not to be viewed as "labor." While our research programs do have labor needs that are addressed through other proposals, this internship is centered on professional development. Interns will engage in all aspects of the research program, but their experience will extend far beyond manual work. The activities outlined below, though not exhaustive, demonstrate the educational and professional value this program offers to students and to Oregon's nursery industry.

Ornamental Plant Breeding

Interns with the breeding program will have an opportunity to propagate a diverse suite of woody plants from seed and cuttings. Propagation will be both for further genetic improvement and for production evaluation. This will allow students to gain experience managing automated mist systems using static and dynamic controllers to better understand time constraints related to summer propagation. Interns will make controlled crosses to improve economically important plants. This will require students to understand which traits are important for nursery crops of different taxa, what opportunities exist for improvement, and methods to combine traits. Students will also conduct lab work such as pollen analysis and flow cytometry to grow their scientific knowledge and understand how to apply foundational knowledge to the applied breeding program. Finally, students will get to assist in preparing trait data for plant patent(s), variety release proposal, herbarium voucher(s), and/or grant reports. All these skills require detailed observations and record keeping, which is critically important when these students go on to a career in the nursery industry.

Weed Management

Interns with the weed management program will gain hands-on experience evaluating integrated strategies for controlling weeds in ornamental crops. Students will learn how to design and implement field studies, collect and analyze weed population data, and assess crop safety and efficacy of chemical approaches. They will operate specialized equipment such as backpack sprayers, while also learning calibration and safety procedures. Interns will practice identifying key weed species, monitoring resistance issues, and evaluating impacts of weed management practices on crop performance. In addition, students will contribute to data analysis, extension reports, and presentations, building both technical and communication skills. These experiences will prepare them with the applied knowledge and problem-solving abilities needed to address weed management challenges in Oregon's nursery industry.

In addition, students will contribute to evaluating the tolerance of new cultivar releases from the Ornamental Plant Breeding Program to registered herbicides. These experiences will equip interns with applied knowledge and problem-solving skills essential for addressing weed management challenges in Oregon's nursery industry, while also generating information that supports local growers in adopting new cultivars.

Sustainable Landscapes

The Oak Creek Center for Urban Horticulture is a six-acre facility on the southwest end of OSU campus, adjacent to the Oak Creek stream. At this facility students are trained in greenhouse, hoop house and ornamental landscape management. The intern funded by this grant at this location would be responsible for propagation of greenhouse plant material, irrigation (hand and automated), fertilization and weed management in the greenhouse, hoop house and ornamental landscape areas. Skills this student will learn include but are not limited to plant propagation, irrigation auditing, liquid and granular fertilizer calculations and application, and pesticide sprayer calibration and application. The intern would be trained and supervised directly by Alec Kowalewski and the funds will be leveraged by a $5,000 match from the Grover Environmental Landscape Support Fund Endowment. The benefit of this internship to the OAN would be skilled managers ready for greenhouse, hoop house and ornamental plant management. The activities of the Oak Creek intern will be recorded and presented in a final report to the Grover Family and the OAN as well as outlets to share experiences bulleted below. This report is also posted annual

on the Beaver Landscapes – Suggested Internships webpage:
https://horticulture.oregonstate.edu/beaverlandscapes/students/suggested-internships

In addition to the specific skills, tasks, projects, and experiences each student will conduct, all interns will participate in the following.

1. Weekly, rotating visits for interns among our three programs during which interns give short presentations to the other two along with PI and/or staff about what they've been doing. These are intended to simulate a grower visit during which time the intern explains what their project is, why it's important to the industry, and what is the deliverable.
2. At least monthly nursery visits. We will coordinate such that all three interns and at least one PI visit growers. The goal is to expose students to a variety of systems and scales.
3. Interns attend Farwest show and help staff the booth for "Ornamental Plant Development, Production, and Evaluation"
4. Interns co-author (with our editing) a Digger article to detail their experience.

Budget Summary

Salary	
Student intern stipends	$15,000
Other payroll expenses	$1,500
Total	**$16,500**