

## Summer Project at WSU Puyallup: Eradication of exotic pests and pathogens using steam



**Project Description:** The WSU Puyallup Ornamental Plant Pathology (PPO) program (<https://ppo.puyallup.wsu.edu>) has a 20-40 hr/wk position for July-August 2023. Students interested in obtaining hands-on experience in plant pathology research and extension are particularly encouraged to apply. The student will assist with applied research and gain an understanding of the options for pursuing careers in plant and environmental sciences, including the possibility of graduate studies.

We do research on management of the invasive snail, *Ceratomyxa virgata*, and *Phytophthora ramorum*, an invasive plant pathogen. Both of these organisms are of regulatory and economic significance to Washington State. The vineyard snail must be eradicated from the Port of Tacoma to prevent its movement into wheat production areas in WA. Because the *C. virgata* infestation is in a seasonal wetland area, treatment with poison bait is not permitted. Methods for treating soil at restoration sites with steam are being developed to provide a non-chemical alternative for preventing the movement of *Phytophthora* and other soilborne pests/pathogens from contaminated planted nursery stock into the ecosystem being restored.

Projects include

- Steam treatment methods for large areas
- Eradication of the vineyard snail (*Ceratomyxa virgata*) at the Port of Tacoma
- Further development of techniques for treating soil at contaminated restoration sites
- Detailed summary of duties

Responsibilities include assistance with plant pathology projects by constructing, labelling, mapping and maintaining plots, working with plants (e.g. transplanting, planting, watering), and collecting and entering data.

In addition, the worker will assist with projects that involve the use of low pressure steam to manage of *Phytophthora* and other diseases and pests, such as the vineyard snail, in soil. This involves working with a steam generator and temperature recording equipment. The worker will assist WSU staff in setting up steaming plots, placing temperature sensors and dataloggers, collecting and processing soil moisture samples, operating the steam generator, and other activities.

The worker will also help with other projects of the Ornamental Plant Pathology program as needed.

- Required Qualifications

This position will involve some heavier labor in the field such as handling steam hoses, tarps, and sandbags, site preparation and plot construction. Must be able to lift at least 50 pounds. In addition, driving vehicles to steaming sites. WA drivers license and proof of insurance are required. Must be at least 18 years old and have more than 2 years driving experience.

- Preferred Qualifications

Previous experience in any of the above activities.

**Duration:** The timeframe for the position will be during July-August 2023, but can be more. These dates can be adjusted according to schedule or travel plans. Specific details concerning pay rate, start date, daily work hours, etc. will be determined.

**Application process:** Send resume and information on your availability to:

Dr. Marianne Elliott, WSU Puyallup Plant Pathology, 2606 West Pioneer, Puyallup, WA, USA, 98371-4998; 253-445-4596 (o); 206-992-5474 (m); [melliott2@wsu.edu](mailto:melliott2@wsu.edu)

**More about the Ornamental Plant Pathology program and our many other projects here:**

<https://ppo.puyallup.wsu.edu/>