

IMPACT OF DETECTING A NEW PATHOGEN IN THE U.S.

ISSUE – A NEW PATHOGEN THAT THREATENS THE NURSERY INDUSTRY AND NATURAL ECOSYSTEM

- Oregon's top agricultural commodity is the nursery industry with a value of \$1.22 billion annually (NASS 2022).
- In 2024, the Oregon State University (OSU) Plant
 Clinic detected Phytophthora austrocedri for the first
 time in the U.S. from a Juniper sample submitted by a
 nursery.
- The pathogen infects plants in the Cypress family, which include juniper and arborvitae, posing a risk to the nursery industry.
- Native forest species, such as Port Orford cedar and western red cedar, are also at risk should this pathogen establish in forestlands.



Wilting and crown canker on juniper caused by P. austrocedri

RESPONSE

- The OSU Plant Clinic worked with the Oregon Department of Agriculture (ODA) to report the pathogen to USDA-APHIS.
- The ODA worked with USDA-APHIS to survey infested nurseries, identify new hosts, and to remove infected plants.

RESULTS

- OSU Plant Clinic provided rapid identification and communication when this pathogen was introduced into the U.S. facilitating regulatory response.
- Response included raising awareness in Oregon on the risk of *Phytophthora* to the nursery industry.
- Information of the new pathogen was shared with diagnosticians in other states to raise awareness
 of this new risk.
- Researchers initiated studies to evaluate fungicides and better understand the biology of this new problem to develop management strategies.







Damage caused by P. austrocedri on juniper in a woodland in Scotland. Photo credit: Crown Copyright Forest Research.

The NPDN is critical for maintaining relationships between diagnostic clinics and regulatory agencies so we can surveil emerging pathogens and prevent their spread - Mana Ohkura, Director of Oregon State University Plant Clinic

The NPDN expands our capacity to detect and respond to novel plant pathogens. In the case of P. austrocedri, the NPDN was key in identifying the causal pathogen to species. Going forward the OSU Plant Clinic will continue to provide identification services to industry and support ongoing research efforts. — Chris Benemann, Plant Protection Division Director, Oregon Department of Agriculture.

