PLANT PRODUCTION & DISPLAY AREAS

- Reduce potential spread of _P. ramorum_ by alternating blocks of host plant material with blocks of non-host plants.
- _P. ramorum_ can spread contact with infected foliage, so keeping space between plants is a good practice.
- When plants are sold, clean up leaf debris that may contain inoculum so that new stock does not get infected.

USE CLEAN POTS. Soil and potting mix can adhere to pots and be a source of _Phytophthora_ inoculum that will infect the next plant. Other hitchhikers include insect pests, fungal pathogens, and weed seeds. Use new pots or clean old ones in bleach or steam sterilize.

Sudden Oak Death Research Program

Protecting our natural resources and helping industry respond through research, education, and monitoring.

If you suspect that _P. ramorum_ is in your nursery, contact your local department of agriculture.

This brochure is not a comprehensive guide for monitoring and managing _P. ramorum_, but is a brief primer on some of the main issues that should be considered when developing a management program for your nursery and the basics of recognizing _P. ramorum_-like symptoms.

Visit our website

www.puyallup.wsu.edu/ppo/sod.html

if you have questions or would like more information on managing this plant disease.

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WHAT IS PHYTOPHTHORA? Phytophthora is a fungus-like organism that is closely related to brown algae. Like algae, some stages of its life cycle depend on water. Unlike algae, Phytophthora is microscopic and is recognized by the damage it does to plants. Phytophthora species cause some of the most destructive diseases of forest, nursery, and food crops worldwide. Phytophthora ramorum is an introduced organism that causes sudden oak death and blight on nursery crops. This organism is regulated, and detection of P. ramorum in a nursery can trigger quarantines and have serious economic impact.

THE “FILTHY FIVE”. Five genera have accounted for most of the P. ramorum detections in nurseries. These plants should be monitored closely for symptoms:
• Rhododendron
• Camellia
• Pieris
• Kalmia
• Viburnum


BUY FROM A TRUSTED SUPPLIER. Keep diseases out of your nursery by purchasing certified clean nursery stock from a trusted supplier.

LOOK FOR SYMPTOMS. Always monitor incoming plant material. This is especially important in Washington since most is grown out of state. Isolate any plants with suspicious symptoms.

WATER MANAGEMENT. Since Phytophthora diseases are waterborne, good water management practices are key in preventing plant losses.

KEEP PHYTOPHTHORA FROM SPREADING
• Provide good drainage in plant display areas, can yards, roads, etc.
• Avoid overhead irrigation. If you use overhead irrigation, ensure that leaf wetness of 12-hr or more is minimized. Irrigate in the morning to allow leaves to dry as soon as possible.
• Do not use water from ponds or streams for irrigation unless it is treated with chemicals—such as sodium hypochlorite (bleach)—to eliminate disease organisms.

Typical symptoms of P. ramorum on Rhododendron and Viburnum foliage. Look for brown lesions on areas where water collects, such as leaf tips. Lesions tend to spread along the midvein.