

# Phytophthora and Armillaria Root Rots

## Root rot is a silent killer of a number of western Washington landscape plants.

Symptoms of root rot fungi may include:


- Severe dieback of stems
- Yellowing or other color change
- Leaf wilt or loss
- Loss of vigor

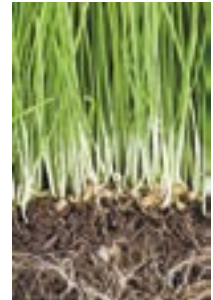
Unfortunately, root rot fungi are usually well established before symptoms of infection appear. Depending on cultural conditions, age of plant and species of pathogen, an infected plant may slowly decline or die suddenly.

Two common pathogenic fungi that cause root rot are Phytophthora and Armillaria. They attack a wide range of plants in western Washington, killing the roots and lower stems. Phytophthora causes a slow decline of plants and eventually death. Armillaria causes the rapid death of young trees, while infected older plants may decline slowly or die suddenly.

### What you can do

- Get a laboratory soil or tissue test for positive identification of root rot fungi; they have similar symptoms. You can download sample sheets at [www.ribeiroplantlab.com/](http://www.ribeiroplantlab.com/). Once a pathogen has been identified, we can recommend a resistant replacement species.
- If a plant is infected by Armillaria, remove the plant; there are no control options. Spores will spread in infected soil, plant parts and water.

- If the soil test shows Phytophthora, talk to us about deep root injections that can help support plant health.
- Avoid planting susceptible species in stressed areas. These fungi can persist in soil for many years.
- Plant resistant species in areas where root rot fungi have been identified. Call us or go to our web site for a list of resistant plants.
- Before you plant another species in the same site, look for problems with compacted and poorly drained soils and correct them if necessary. These conditions favor the development of root rot fungi. 



### References

- Landscape Plant Problems: A Pictorial diagnostic Manual. Byther, R.S., Foss, C.R., Antonelli, A. L. Maleike, R.R., and Bobbitt, V.M. Washington State University Cooperative Extension, 2000.
- Pacific Northwest Landscape IPM Manual. Bobbitt, V.M., Antonelli, A.L., Foss, C.R., Davidson R.M., Byther, R.S, and Maleike, R.R. Washington State University Cooperative Extension, 1996.
- Pests of Landscape Trees and Shrubs: An Integrated Pest Management Guide. Dreistadt, S. ANR Publications, University of California, 1994.

