

(revision date:4/23/2014)

Pine: Armillaria root rot

Use Integrated Pest Management (IPM) for successful plant problem management.

Biology

Armillaria root rot is a fungal disease transmitted between plants by root contact or through infected soil. Armillaria is often found in newly cleared soils or soils which have been flooded. Symptoms typically include sudden or gradual slowing of growth, yellowish or undersized needles, needle loss, or dieback of branches. White thread-like masses of the fungus may be found beneath the bark near the crown of infected trees, and/or as shoestring-like rhizomorphs, which are dark strands of the fungus growing on or just beneath the soil surface. Honey-colored mushrooms often grow near the base of infected trees in the fall. Infected trees may also exhibit a dark black line in the infected area encircling the base of the plant. Pines may develop a resin flow at the base of the trunk and then yellowish foliage. Infected trees are more susceptible to attack by bark beetles. Young, stressed trees are most susceptible. Armillaria-infected trees have damaged root systems and are more likely to fall in high winds.

Management Options

Non-Chemical Management

- ~ Remove infected plants, including stumps and roots larger than 1" in diameter (where possible).
- ~ Air-dry soil from infected site before replanting.
- ~ Plant only resistant plants in infected areas (when possible).
- ~ Avoid surface watering and moisture on crown and roots near the trunk.
- ~ Provide proper culture to decrease stress and encourage vigorous, disease-resistant trees.

Select non-chemical management options as your first choice!

Chemical Management

IMPORTANT: Visit Home and Garden Fact Sheets for more information on using pesticides

None recommended

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Images



~ Caption: *Armillaria root rot infecting trunk*
~ Photo by: *C.R. Foss*



~ Caption: *Armillaria root rot infecting trunk*
~ Photo by: *R.S. Byther*



~ Caption: *Armillaria rhizomorphs*
~ Photo by: *R.S. Byther*