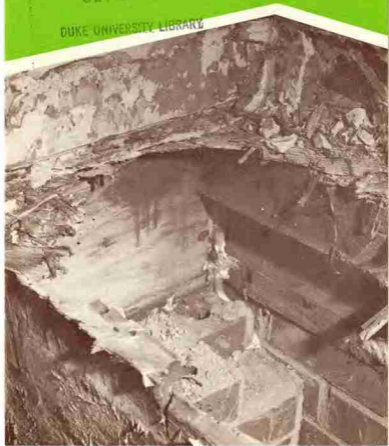


PORIA INCRASSATA
OR **DRY**
ROT
in
WOOD

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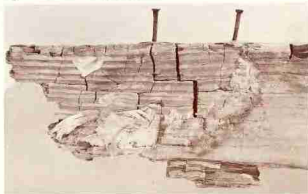


Recognition, Control, and Prevention of *Poria incrassata* Rot, the Water-Conducting or Dry Rot Fungus

Most wood-decay fungi are unable to conduct water very far and can attack only moist wood. *Poria incrassata*, sometimes called dry rot or the water-conducting fungus, can conduct water through large water-conducting strands (rhizomorphs) for many feet. It will decay wood which cannot be attacked by normal decay fungi. Once established, the fungus can spread through a building quickly and destroy large areas of flooring and walls in a year or two. Fortunately, only a small percentage of fungal decay of wood in buildings is caused by *Poria*, and its control is fairly simple.

Tests show that *Poria* can survive only with a constant outside source of moisture conducted by the fungus to the area of active decay. It will die very rapidly in wood if the external supply of liquid water is cut off. Thus, despite the name dry rot, *Poria* needs water to decay wood.

Figure 1 Joist decayed by *Poria*.



How to Recognize Dry Rot

Typically, infections of *Poria* (dry rot) start in earth-filled porches, damp crawl spaces, and basements where wood is in contact with the soil, with wet pipes, or with moist concrete or bricks, which act as a constant source of water. First, papery whitish-yellow mycelial fans grow over the surface of joists and sub-floors, or in other protected places.

Irregular root-like rhizomorphs may appear on foundations, framing, the underside of flooring, and on other attacked wood. The rhizomorphs are dirty-white when young, but turn brown to black with age. They are commonly $\frac{1}{4}$ to $\frac{1}{2}$ -inch wide, but can be an inch or more wide in old infestations. Often they are hidden in concrete, masonry or behind wooden structures.

Fruiting bodies do not always form in buildings. When they do occur, they are found on well-rotted wood and are succulent, flat, up to $\frac{1}{2}$ inch thick, and pale olive-gray with a dirty whitish-yellow margin when young. With age they become dry and turn brown to black. The under-surface of the fruiting body is covered with fine pores.

When wood with intermediate to heavy decay dries, it usually shrinks severely and cracks across the grain. Such cracks, or depressed areas in painted woodwork, may be the first evidence of infection.

Figure 2 Rhizomorph (arrowed) emerging through masonry from earth-filled porch.



Rhizomorphs are characteristic of *Poria*, but if the cause of decay is not clear, seek advice from your local county Extension office, pest control company or building Inspector.

How to Prevent Dry Rot

The methods required to prevent *Poria* attack are the same as those needed to avoid attack by ordinary wood-decay fungi. They are described in some detail in the *It's Wood Rot—Not Termites* (N. C. Agricultural Extension Service Extension Folder No. 300). Methods include the following:

- Using undecayed dry lumber for construction.
- Using wood which has been pressure treated with preservative where contact with moisture cannot be avoided.
- Using earth-filled porches *only* when the top of the earth fill is below all wood construction.
- Keeping wood in the building dry.
- Keeping untreated wood well above the soil.
- Removing wood debris and all forms used in pouring concrete from under the building.
- Keeping caulking and paint well maintained.
- Inspecting the building regularly for warning signs of decay and for conditions which lead to decay.

Figure 3 Cracked and warped baseboard decayed by *Poria*.



HOW TO CONTROL DRY ROT

1. Locate and remove the source of water. Invariably, the fungus receives its water in the general area where decay occurs and usually where it is most severe. The most common origins of attack are:

- Earth-fill in porches or terraces.
- Forms left under concrete steps or on foundations.
- Stumps or wood debris which make a direct bridge from the soil to the building, or act as infection centers from which rhizomorphs extend to the building.

2. Break all wood-soil contacts and remove asphalt papers or other cellulosic materials making bridges. If necessary, regrade the crawl space or soil outside the house to provide greater clearance between wood and soil.

3. Make sure there is good drainage and ventilation in the crawl space. Waterproof the foundation walls when the crawl space cannot be kept dry by improving ventilation and drainage.

4. Look for and repair plumbing leaks. In shower stalls, a completely new, watertight lining may be needed. If the framing and sheathing for the floor and wall of a shower are exposed while repairs are being made, replace them with pressure-treated wood.*

5. Remove rhizomorphs and other fungus growths from concrete and brick foundations with a steel brush whenever possible.

6. When rhizomorphs are hidden inside concrete blocks or in loose mortar in brickwork, insert a metal shield between foundation and wood.

**Poria* can attack the so-called decay resistant woods such as heart cypress. Therefore, these woods should not be used in place of pressure-treated wood.

7. When attack occurs in a slab-on-ground house which does not meet waterproofing and ground-clearance standards (12 inches from plate to finish grade), replace all basal plates with pressure-treated wood.*

8. When extensive attack occurs in basements, replace wood in contact with walls and floors with pressure-treated wood.* Remove enclosed stairs, partitions finished on both sides, cupboards, and wood paneling on exterior walls in moist basements.

9. Use sound dry wood to replace any which has been made useless by decay.

• IF the sources of moisture which enabled decay to get started are eliminated entirely, replace only the wood which has been weakened.

• IF there is the slightest doubt about the effectiveness of moistureproofing, all decayed wood and wood for a distance of at least 2 feet beyond any evidence of decay should be replaced with pressure-treated wood.* Chromated-copper-arsenate, ammoniacal-copper-arsenite, or pentachlorophenol treated wood can be used.

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