Forest Disease Management Notes

Brown Cubical Butt Rot

Brown cubical butt rot is caused by Phaeolus *(Polyporus) schweinitzii,* often called the velvet-top fungus. This fungus causes extensive butt rot in infected trees. It is common in old-growth trees, particularly those with fire scars. It can also cause a tree-killing root rot in young trees.

Hosts: Douglas-fir, pines, spruces, larch.

Recognition: Large mushrooms may occur on ground near or growing from the base of infected trees and on the stem rarely over 10 foot above the ground; these appear in late summer and fall and are at first redbrown with a yellow, velvet tinge; as they age, they attain a dark brown color and resemble cow droppings; mushrooms growing on the ground have a circular shape with a depressed center and taper to a short, thick stalk; those growing on trees are often bracket-shaped; thin crust-like mycelial layers frequently are found in shrinkage cracks of decayed wood. There may be no evidence of early decay, or it may show as a yellow to reddish-brown discoloration running a few inches to several feet ahead of advanced decay; advanced decay is a distinctive dry, crumbly, brown cubical rot; decay is limited to heartwood and normally is confined to roots and butt of the host; extreme decay frequently results in breakage or windthrow.

Disease Spread: Windborne spores infect new hosts through fire scars and wounded roots; also spreads along roots; mostly a problem on older trees, though young trees occasionally are affected. The fungus can persist in roots of dead or cut trees and infect roots of the developing trees.

Management: Avoid wounding trees; when possible, harvest trees before they become overmature; in recreation areas, treat all trees showing evidence of infection by this fungus.

May be Confused With: Brown trunk rot (*F. laricis),* brown crumbly rot (F. *pinicola),* white pocket root rot *(I. tomentosus).*

Phaeolus schweinitzii conks

Characteristic brown cubical rot caused by *Phaeolus schweinitzii*