Forest Health Protection, Southern Region

HEART ROTS,

caused by *Hericium erinaceus, Pleurotus sapidus, Polyporus fissilis,* and *Laetiporus sulphureus*

Importance. - Heart rot is the single most important disease of merchantable, hardwood timber in the South. Heart rot can affect all parts of the tree, but frequently occurs in the butt log, where its impact on the value of the tree is greatest.

Identifying the Fungi. - Many fungi are responsible for heart rot in hardwoods; however, four species cause about half the damage. These are *H. erinaceus*, *P. sapidus*, *P. fissilis*, and *L. sulphureus*. These and other fungi can be identified by the conks they produce.

Identifying the Injury. - Damage resulting from most heart rots can be easily observed. Most begins at basal injuries, like those caused by fire and logging damage. In addition, poorly healed and decayed branch stubs and other stem defects are strong indications of heart rot.

Heart rot developing on oak sprouts.

Basal heart rot on oak.

Biology. - Heart rots begin through wounds, if the wounds are sufficiently deep or large. Healing is slow and permits a succession of chemical changes, and bacterial and fungal colonization. If the succession is complete, decay will be initiated and will continue for many years.

Control. - Once the decay process begins, there is no control. Consequently, prevention through the reduction of wounds from all agents is crucial to controlling heart rot. Affected trees that have any merchantable volume should be salvaged, while those that do not should be felled or girdled.