



Forest Health Protection, Southern Region

LUCIDUS ROOT AND BUTT ROT,

caused by *Ganoderma lucidus*

Importance. - This disease is one of the most common root and butt rots of southern hardwoods. It has a wide host range including oaks, maples, hackberry, ash, sweetgum, locust, elm, mimosa, and willows, and is found throughout the South. Host trees normally decline for a variable period of time and then die.

Identifying the Fungus. - Fruiting bodies (conks) are produced at the butt or on exposed roots of affected trees. They have a stem, the tops are reddish to buff-colored, and the white undersurface is porous. Conks are tough, woody, and persistent.



Fruiting body of lucidus root and butt rot.

Identifying the Injury. - Affected trees usually show a rapid decline,

evidenced by shortened twig growth, off-color foliage, dwarfed and sparse foliage, and branch dieback. The rotten roots are white and spongy, with black flecks or dark lines.

Biology.- This fungus invades trees stressed or wounded by a variety of agents, including fire, soil compaction, construction injury, vehicular damage, herbicide injury, and lawnmowers. Airborne spores contact the wounds and invade susceptible tissue, spreading up into the butt of the tree or down into the root system, or both. Colonization of healthy trees may also occur through root grafts or contacts with diseased roots.

Control. - Preventing basal wounds is the best method of avoiding damage by root and butt rots. Irrigation and fertilization can help promote rapid wound healing and minimizes exposure of susceptible tissue to decay organisms. Susceptible tree species, like mimosa and oak, should not be planted where serious damage has occurred in the past.
