AgriLIFE EXTENSION
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PLPA-116

PLANT PATHOLOGY & MICROBIOLOGY

Understanding, Recognizing, and Keeping Hypoxylon Canker of Oaks at Bay

Part 3. *Managing Hypoxylon Canker*

Hypoxylon canker, caused by the fungus *Biscogniauxia atropunctatum,* occurs on trees exposed to stress. Therefore, the disease may be controlled by preventing the stress from occurring and allowing the tree's natural resistance mechanisms to inhibit the pathogen. If a tree succumbs to stress, then measures must be taken to reverse the condition before the pathogen can invade.

Measures should be taken to avoid those stress factors listed in Part 1 of this series. If any of these or other stress factors occur, then remedial action should be taken to maximize the regeneration of the root system and allow the tree to cope with the subsequent strain. An aggressive way to improve the soil environment and stimulate feeder roots is through vertical mulching.

Vertical mulching→ In addition to fertilizing and root zone aeration, vertical mulching can increase gaseous exchange in the root system. Vertical mulching can also lessen damage due to excessive water, provide necessary aeration during wet periods, allow water penetration during drought periods, and promote the formation of fine feeder roots. Vertical mulching is a process by which a porous matter, such as pea gravel, sand or a mixture of compost with pea gravel, rice hulls or sand is added to holes drilled throughout the root zone of the tree (Figure 1). The holes should be 18 – 24" deep and a few inches in diameter.

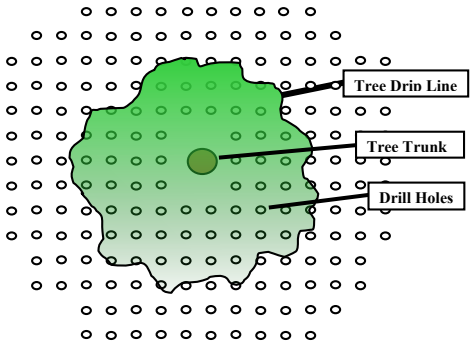

Fig. 1. Vertical mulching diagram illustrating placement of holes.

Remedial pruning→ If 15% or less of the canopy is affected, prune out all dead branches. All pruning should be done utilizing proper pruning practices.

Tree removal→ If over 15% of the canopy is infected, one should consider cutting the tree down. This pathogen causes a white rot of the wood and trees killed by *B. atropunctatum* may quickly become a hazard. Since the fungus is already present throughout a stand, destroying the wood to prevent further infections is questionable. Nonetheless, storing diseased wood in the immediate vicinity of remaining trees should be avoided.

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