Williamson County Regional Park Disk Golf Course Tree Evaluation and Recommendation

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SUMMARY

Williamson County owns parkland and operates a disk golf course that is open to the public year round. There are numerous trees on and around the disk golf course that are exhibiting sloughing bark and death. This is a concern because the trees are potentially hazardous to the public using the golf course.

GENERAL OBSERVATIONS

The trees on this site are mostly large live oak, post oak, blackjack oak, and cedar elm with underbrush of cedar and elbowbush. Many of the trees are showing signs of hypoxylon canker. This is most likely due to the extreme drought that Central Texas has experienced. There is no supplemental water being applied to the trees. The disk golf course has eighteen holes. Only the first and eighteenth fairways were walked on this site visit. Many of the trees are located within the edges of the fairways and some over picnic tables, tee boxes and disk baskets. The Park Superintendent indicated that there are 200 plus trees throughout the remaining portion of the disk golf course with similar symptoms. Observation of the 18th fairway from the tee box to the basket, twenty trees were observed to show signs of the cankers.

What is Hypoxylon Canker?

Hypoxylon canker is a fungus that causes cankers and death of oak and other hardwood trees. The disease is common in Texas and all across the Souther United States. Hypoxylon will readily infect the sapwood of a tree that has been damaged, stressed, or weakened whereas generally healthy trees are not affected. In addition to the hypoxylon fungus, weakened and stressed trees may become susceptible to a host of other insect and disease pests.



Photo 1. Hypoxylon Canker

Hypoxylon canker activity usually increases when prolonged drought occurs. Once hypoxylon actively infects a tree, the tree will likely die. Early indications of hypoxylon canker is noticeable thinning of the crown, also the crown may exhibit branch dieback. As the fungus develops, small sections of bark will slough off and powdery spores can be seen. By the time spores become visible, the tree is dead. The tan areas will turn dark brown to black and become hard. They have the appearance of solidified tar. The areas will then become a silver gray color after several months.

Once the fungus invades the tree, the sapwood begins to rapidly decay. Trees that have died from hypoxylon canker and are located in an area where they could fall on structures, roads, fences, powerlines, etc., should be removed as soon as possible. During removal, it is very

dangerous to climb trees killed by hypoxylon canker as the wood is decayed so rapidly, the tree may not support the weight of a climber.

There is no known control for hypoxylon canker other than maintained tree vigor. There is usually little that can be done to avoid naturally occurring stress factors. Damage to tree roots around construction areas commonly predisposes a tree to infection by hypoxylon canker.

RECOMMENDATIONS

All trees showing apparent cankers and death should be removed or at the very least cut and laid on the ground so that all hazards to structures and people are eliminated.

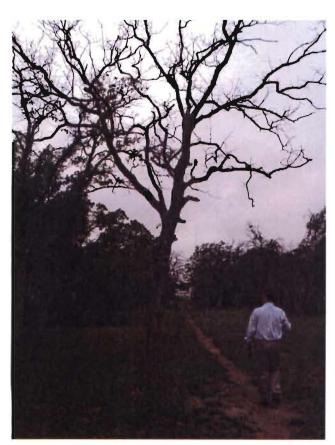


Photo 3. Shows proximity of dead trees to trails used on fairways by the public.



Photo 2. 18th Fairway looking West, showing large trees that are dead and others exhibiting signs of the hypoxylon canker.

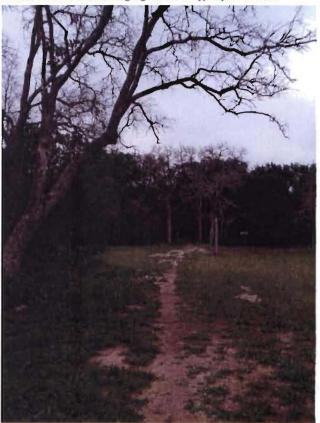


Photo 4. 18th Fairway looking East, showing dead trees with hypoxylon cankers from previous years. Notice the gray patches along the trunk.