



MISSOURI DEPARTMENT OF CONSERVATION

Headquarters

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JOHN D. HOSKINS, Director

REPLY TO: Camdenton Office
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Camdenton, MO 65020
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August 16, 2006

Floyd Lively
Facilities Operation Manager
Duenke enterprises LLC 1026-9 Palisades Boulevard
Osage Beach, MO 65065

Dear Floyd,

Thank you for the tour of the Estates property on Tuesday, August 15. It is my professional opinion based on over twenty five years in the forestry profession that the forested Estates is not suffering from a disease, fungus, virus or other malady which is unique to the Estates.

The continued drought situation in the counties that surround Lake of the Ozarks continues to be a serious threat to the health and well being of the entire forest community. The short lived black oaks, which are mature and begin to decline at age 70, are the oaks that are currently suffering the most mortality due to stress from drought, hardwood borers and hypoxylon canker. These stress factors which are causing the die back of the mature black oaks is often referred to as Oak Decline. The black oaks which generally occupy the south and southwest facing slopes are going to suffer the most due to lack of moisture and thin soils. The white oaks, which are extremely long lived, on north and northwest facing slopes will be least effected and can easily live to be 120+ years of age.

The oak decline problem, especially with this current drought, is not going to dissipate. The problem will only get worse as the drought continues and the oaks become stressed from the lack of moisture. Some areas in Camden County are 13 inches behind in rainfall over the past 18 months. This is the fifth summer in a row that drought has persisted during summer months. If this winter does not bring a good snow pack that slowly melts supplying winter moisture that the trees need, then the oak mortality situation next summer will easily double. There are more standing dead oaks now, then there has been in the past 25 years. Only a change in weather patterns can correct the current rise in oak mortality due to Oak Decline.

As to the term you mentioned, "black fungus", I assume, this is a localized term referring to hypoxylon canker fungus which starts out grayish in color, then hardens and turns black in color. There is no known cure for hypoxylon canker which is brought into the tree by various hardwood borers.

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The forestry practice in a true forest, not an urban interface forest, would be to harvest the black oaks as fast as possible before they become weakened. Two hundred miles south of Camden County where the Oak Decline problem is severe, thousand of acres could not be harvest fast enough and the standing dead timber is going to waste. In some cases the timber is so degraded by hardwood borers that it is not lumber quality.

Oak Decline is a serious problem which we have no control over. If you have landowners that have questions or would like to discuss the situation please have them call me 346-2210 X229.

Sincerely

A handwritten signature in cursive script, appearing to read "D. Rhoades".

DENNIS RHOADES
RESOURCE FORESTER