

Statement of
Tom Thompson
Deputy Chief, National Forest System
Forest Service
United States Department Of Agriculture

Before the
Subcommittee on Forestry, Conservation, and Rural Revitalization
Committee on Agriculture
United States Senate

On

September 5, 2002

Concerning

Oak Mortality in The Ozark Highlands

Madam Chairman and members of the subcommittee, thank you for the opportunity to appear before you today. I am Tom Thompson, Deputy Chief for National Forest System, Forest Service. I am here today to provide the Administration's comments on the oak mortality situation in Arkansas. Accompanying me today is Charles Richmond, Forest Supervisor for the Ozark-St. Francis National Forests. He will assist me in addressing any specific questions you may have.

The health of some of our forests and rangelands are deteriorating and they are stressed to the point that insects, disease, and wildfire kill thousands of acres of trees each year. In response, federal, state, tribal, and local governments are making concerted efforts to restore our forests and rangelands to healthy conditions. These efforts include reforestation, restoring fish and wildlife habitat, revegetating riparian areas, thinning, and prescribed burning.

Additionally, the President's Healthy Forests Initiative will further existing efforts and establish a framework for protecting communities and the environment through local collaboration and restoration projects. The initiative would provide for active forest management, including removal of diseased and infested trees, thinning of forests to reduce fire risk, biomass removal and utilization, and other tools that will meet long-term ecological, economic, and community objectives.

The President's Healthy Forests Initiative will also help to expedite active forest management activities, which are often complicated by procedural delays and litigation.

It will allow us to effectively maintain healthy forests and address forest health problems, including oak mortality in the Ozark-Ouachita Highlands in Arkansas, in a timely manner.

The Condition of Arkansas Forests:

USDA Forest Service surveys indicate that oak mortality has impacted well over a million acres of oak forest in the Ozark-Ouachita Highlands of Arkansas.

Factors such as advanced age, steep mountain slopes, poor rocky soil conditions, and overstocked forests set the stage for oak mortality. Drought and defoliation add additional stresses to the trees. Secondary agents such as insects and disease attack highly stressed trees that eventually succumb and die. In Arkansas' episode of oak mortality, several years of extreme drought and an unprecedented population of red oak borer beetles contribute to the problem. The mortality is not associated with the pathogen that causes sudden oak death that was originally found in California and Oregon.

Preliminary data from the Ozark-St. Francis National Forest suggest that as many as half of the red oaks on national forest lands are currently dead or dying. The increased amount of dead trees results in excessive fire danger, increased threats to life and property, and compounds forest health problems. The Ozark-St. Francis National Forests in Arkansas is severely impacted with over 300,000 of the Forest's 1.2 million acres affected. The Ouachita National Forest in Arkansas and the Mark Twain National Forest in Missouri are affected as well, but to a lesser degree.

The impact on private lands, which constitute 78 percent of the forested area in the Interior Highlands, is thought to be less severe and much more difficult to estimate.

Mortality of northern red, black and southern red oaks became particularly evident in 1999 following 2 years of severe drought. White oaks, hickories and other species are affected as well, but to a lesser degree. A third year of drought in 2000 greatly exacerbated the problem and mortality increased.

Oak borer populations have exploded to unprecedented levels in the past 5 years. In 2001, limited sampling in Arkansas found an average of over 400 insects per tree. These numbers are vastly greater than any numbers previously recorded, which were 4-6 insects per tree.

Oaks are extremely important in the Ozark-Ouachita Highlands. Ecologically, the oaks are a food source for squirrels, bear, turkey, and deer. Many non-game small mammals and birds depend on acorns for food. Economically, the red oaks are a highly desirable hardwood species, used for furniture, cabinets, flooring, and other building projects.

Widespread loss of red oaks could severely impact the social fabric of the Ozark Highlands through job losses, reduced game populations, scenic quality, and tourism opportunities.

According to Forest Inventory data in the recent Ozark-Ouachita Highlands Assessment, 25 percent of the board-foot volume of the Interior Highlands is in the red oak

component—a total volume of 13.8 billion board feet. In timber terms alone, the dollar value of the trees at risk exceeds \$1.1 billion.

An interagency task force comprised of the Ozark-St. Francis National Forests, Arkansas Forestry Commission, Arkansas Game & Fish Commission, Mark Twain National Forest, Missouri Department of Conservation, Northeastern Area (USDA Forest Service) and Southern Region Forest Health Protection (USDA Forest Service), the Southern Research Station (USDA Forest Service), and the North Central Forest Experiment Station (USDA Forest Service) have developed a strategy to address immediate and future threats to the forest ecosystem and associated communities of the Ozark-Ouachita Highlands.

The strategy includes five key components: (1) Public Safety, (2) Public Awareness, (3) Inventory and Assessment, (4) Management Strategies for prevention/suppression/restoration, and (5) Research. This strategy focuses on inventorying and assessing the damage, enhancing public awareness, and removing hazardous oaks from developed recreation areas and major travel routes through the forest. Research activities and a needs assessment with the USDA Forest Service Forest Health Unit, the Southern Research Station, the North Central Forest Experiment Station, and numerous universities are underway. Priorities have been established to enhance natural oak sprouts that can grow new trees in those areas where trees are severely damaged. Additional forest thinning and prescribed fire projects are proposed and being implemented to encourage oak sustainability.

(1) Public Safety. Public Safety is the most important objective. Actions include monitoring tree mortality impacts in recreation areas and roadsides, prioritizing removal efforts, providing safety awareness information initiatives and coordinating tree removal programs with highway departments, utility companies, and local officials.

(2) Public Awareness. Public awareness has been heightened since the onset of the oak mortality situation. Information products and communication tools have been developed to inform people and raise their awareness level regarding the oak mortality situation. Brochures, news releases, interpretive signs, field tours, and programs are just a few of the tools used to inform the public. A communication strategy has been written and implemented over the past several months.

(3) Inventory and Assessment. Aerial surveys have been conducted for state, private and federal lands across the region. Impact estimates have increased as more lands have been surveyed. Maps of inventoried areas showing locations of dead trees, infested sites and potential “at risk” areas have been identified to assist forest managers in planning initiatives to alleviate additional losses.

(4) Management Strategies for Prevention/Suppression/Restoration. It is difficult to suppress the insect epidemic because the epidemic is a secondary impact resulting from many factors. Prevention treatments, however, can be effective in improving the health of the forest. Forest Health Protection specialists recommend the following treatments in order to address the situation:

From a suppression standpoint, cutting and removing red oak trees from the forest will reduce subsequent insect populations to some degree, and should reduce near-term mortality in adjacent trees and areas. Borer larvae or developing adults would be removed from the wood and destroyed in processing operations.

Red oak trees infested with red oak borers could also be cut and left on the ground where other insects, predators and environmental conditions would reduce larvae survival.

Salvageable trees could be removed at a later date.

Long-term prevention methods are needed to improve the health of these forests. For example, selective removal of red oak trees from the forest would create a bigger variety of trees in the forest that would enhance oak reproduction potential. Prescribed burning across the forest would enhance oak restoration and growth potential. Planting diverse tree species would also assist in a healthier forest in the long-term.

Several grant projects have been funded through Forest Health Protection Programs and the University of Arkansas. Geographic information systems are in place to monitor populations and damages by the red oak borer. A third project with the Forest Service's Southern Research Station is using ground survey plots to evaluate the extent and severity of the decline event over the entire Ozark/Ouachita Highlands area.

(5) Research. Research scientists have developed strategies to reduce the future loss of oak trees in the region. Funding estimates for research needs are included in the agency's action plan. Several studies were initiated in FY 02 to learn more about this pest.

Information is needed to: 1) characterize and describe the ecology of this insect and identify associated factors for future management initiatives; 2) quantify the extent of damage, effects on forest resources and realistic restoration treatments; and 3) develop pest control and regeneration methods.

Activities targeting utilization, restoration, salvage, protection from hazards, effects on wildlife, concerns about recreation and people's expectations are needed for future management of this problem.

Summary:

In conclusion, our short-term challenges are to provide for the safety of forest users, and create a healthy environment for future forests to grow and flourish. Oaks thrive in a forest that is managed, one that is free from excessive fuels, that incorporates natural and man-made activities in order to sustain healthy ecosystems.

Long-term challenges include development and implementation of strategic management actions, founded on sound scientific data that will result in healthy, resilient forests for generations to come. We are working to address both short and long-term challenges,

and will be able to do so even more efficiently under the President's Healthy Forest Initiative.

This concludes my statement. I would be happy to answer your questions.