



A proposal to establish the Forest Health Research and Education Center at the University of Kentucky

Forest resources critical to our country's economy and natural landscapes face numerous threats including a variety of pests and pathogens with the demonstrated potential to completely destroy our foundational tree species, degrading forest productivity and ecosystem value. Scientists working across the world have developed greater awareness and many new approaches to address these threats; however, we have failed to strategically and comprehensively mobilize these capabilities into initiatives designed to protect and improve our imperiled trees and the forests they support. If we do not act decisively, the impact of losing additional foundational forest tree species will be significant, if not catastrophic, both economically and environmentally.

Trees and forests currently under attack – affecting people, communities, and the environment

Experts suggest that the *emerald ash borer* and *hemlock woolly adelgid* will continue to spread and kill virtually every ash and hemlock tree across the eastern U.S., much as *chestnut blight* has done to the American chestnut. Losses will be significant to woodland owners, homeowners and municipalities as well as to streamside ecosystems and associated aquatic and terrestrial wildlife.

Threats on our door step – and the potential for catastrophic economic loss

Forest industries throughout Kentucky and the eastern hardwood region depend on a handful of foundational tree species— their disappearance would mean catastrophic financial impacts to these industries, as well as the communities and people who depend on them. One of the most significant future threats is the loss of oaks from *sudden oak death*. For example, oaks comprise nearly 50% of hardwood sawtimber volume in Kentucky and are the cornerstone of forest industries contributing more than \$12 billion to the Commonwealth's economy. Kentucky's hallmark distilling industry has grown from \$1.8 to \$3 billion in the last two years and is dependent on white oak for bourbon barrels. Currently, sudden oak death is restricted to the western U.S., but experts believe it is only a matter of time before it threatens the eastern hardwood forests.

Regaining the initiative – a proactive approach to solving tree and forest health challenges

To address this challenge, the University of Kentucky (UK), the USDA Forest Service Southern Research Station (USFS), and the Kentucky Division of Forestry (KDF) are partnering to form the "Forest Health Research and Education Center" (FHC). The FHC, through regional to international collaborations, will conduct: 1) biological research to understand and enhance tree resistance and forest/ecosystem responses to biotic and abiotic stressors, 2) social research on the economic and cultural impacts of tree/forest/ecosystem loss and the factors affecting adoption of new technologies and approaches to improve forest health; and 3) extension/outreach programs to educate stakeholders and researchers on forest health issues and to connect them through participatory research networks to develop resistant trees and improve forest resilience.

A USFS grant (\$350,000), leveraged with UK and KDF institutional resources (\$210,000) and private gifts (\$300,000), will fund the FHC for an initial two-year period. However, to put the FHC on a financial foundation necessary for accomplishing the objectives outlined above, we are requesting \$1.525 million in recurring federal support that will be combined with \$1.55 million in recurring institutional support (\$1.25 million UK and KDF and \$0.3 million USFS) and funds awarded through competitive grants and private donations. Using these resources, the FHC will assemble a core group of researchers and educators to collaborate with experts around the world with the goal of solving our most pressing forest health challenges. As a testament to its relevance and need, dozens of scientists from UK and collaborating institutions worldwide are becoming involved in research and educational programs with the nascent FHC.

The signatories on this letter attest to the critical importance of the FHC and its effort to address the economic and environmental challenges presented by threats to the health of our forest resources. It is time to regain the initiative with proactive, strategic, and comprehensive efforts to turn back the loss of foundational native forest trees and thereby preserve important economic opportunities for citizens, communities, and industries as well as the ecological integrity of millions of acres throughout the region.

Respectfully,

Darrin Gay
President, Kentucky Forest Industries Association

Jack Rentz
Kentucky Woodland Owners' Association

Mark Barford
National Hardwood Lumber Association

Tom Inman
Appalachian Hardwood Manufacturers Association

Chris Will
Kentucky Association of Consulting Foresters

Dave Leonard
Consulting Arborist
2010 Arborist of the Year, Intl Soc. of Arboriculture
Lexington, KY

Leah MacSwords
Director & State Forester
Kentucky Division of Forestry

John Obrycki, Ph.D.
Chair, Department of Entomology
Kentucky Forest Health Task Force
State Entomologist

Nancy Cox, Ph.D.
Dean, College of Agriculture, Food & Environment
University of Kentucky

Chuck Courtney
Green River Logging

Lynn Garrison
President
KY Chapter of The American Chestnut Foundation

* groups above have indicated support to date,
signatures pending

see blue.

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Contact: Terrell T. "Red" Baker
terrellbaker@uky.edu
(859) 257-7596