

White Oak Initiative

by Jeff Stringer

White oak is a dominant species across the central, northern, and Appalachian hardwood regions from the mid-south to the Midwest (Figure 1). It is important ecologically and economically. Sustaining significant white oak resources is critical to the long-term survival and

growth of important economic sectors, including the forest products and distilling industries responsible for generating billions of dollars to local economies throughout the white oak region.

Currently, white oak growing stocks are sufficient to meet demand. However, research and long-term growth and drain projections indicate problems

in regenerating white oak and maintaining high-quality white oak growing stocks. Current forest data from the white oak region (Figure 2) shows a significant reduction in smaller-sized oak that indicates a shortage of large high-quality white oak in

the future. This means there is a sustainability problem looming for industries and wildlife species that are benefited by white oak.

Historical land-use practices including repeated wildfires are credited with creating conditions that made

it easy for oaks to regenerate. However, the reduction of these practices and lack of current management coupled with exploitive timber harvesting practices have resulted in decreasing natural regeneration success of white oak on moderate and good quality sites. Fortunately, researchers are discovering methods to manage the species for successful regeneration. The majority of white oak is growing on family forests (private non-industrial forests). It is to their advantage and necessary for maintaining the dominance of the species, if they, along with all private and public ownerships, employ research-based management to reverse negative trends in regeneration and loss of declining growing stocks (Figure 3). Given the long growth period, we need to work on white oak sustainability now to prevent a future crisis.

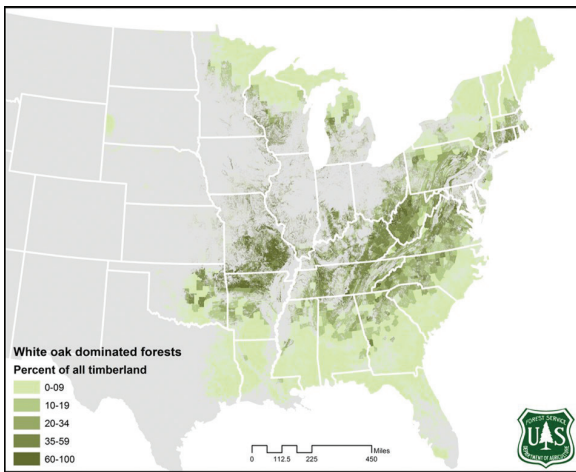


Figure 1. Dark areas indicate the white oak sourcing region.

USDA Forest Service, Southern Research Station Forest Inventory and Analysis Program. 2018. Unpublished data. Knoxville, TN: U.S. Department of Agriculture, Forest Service, Northern Research Station

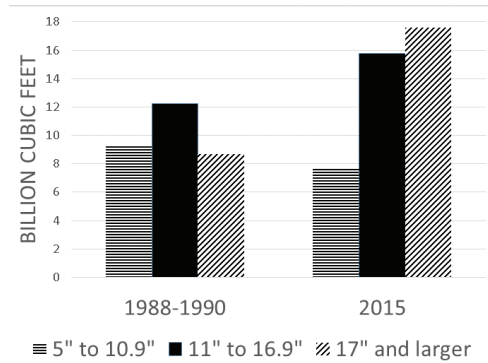


Figure 2. Size class data from Luppold 2017 USFS.

Figure 3. Understory of 3 to 4 foot tall native oak seedlings resulting from researched based management on the Taylor Farm in Kentucky.

Photo courtesy: Jeff Stringer



White Oak Initiative

The importance of white oak to the industries that are dependent on it and the ecosystem values it provides warrants a strategic and holistic approach to its sustainability, including monitoring, research, sustainable management and harvesting, and education. This must occur across state boundaries throughout the heart of the white oak region. The White Oak Initiative is a partnership comprised of industry, agency, university, and non-profits to bring together those dependent or invested in the economic, social, and/or environmental benefits of white oak. The Initiative is designed to actively develop and facilitate the implementation of practices specifically designed to conserve and sustainably manage white oak-dominated forests. The Initiative has a region-wide steering committee representing both industrial and non-industrial interests that will work to facilitate and coordinate white oak work.

While the White Oak Initiative is still in its infancy and membership is still evolving, several notable white oak projects have already been initiated. This includes research collaboration among several universities in the region and U.S. Forest Service researchers that are meeting to build research projects tackling various aspects of white oak sustainability. There are also two large coordinated projects involving 17 state forestry agencies in the region, facilitated by the University of Kentucky Department of Forestry and Natural Resources and the Kentucky Division of Forestry for the southern states, and the American Forest Foundation for northern states. The White Oak Initiative will help to facilitate these ventures as well as help find additional resources, educate elected officials, and promote research and technology transfer to sustain white oak. The Initiative also is aligned with the Kentucky Spirits Research Institute being developed at the University of Kentucky that has a direct concern with white oak wood availability. Both of these will collaborate to further research into the sustainability of the species.

White Oak Initiative Membership

The White Oak Initiative Steering Committee is meeting to develop the internal structure of the organization. Commitments have been made and funding procured for a director. Steering committee members have formed nine subcommittees to help move the Initiative forward. The membership committee has drafted entry principles and will be sending out information on how to join the Initiative to all those who have indicated an interest in the Initiative over the last two years as well as to aligned industries, agencies, organizations, and individuals. A web presence is being developed and when launched will provide updates on white oak projects, activities of the Initiative, and an entry portal for those interested in membership. Stay tuned for further information on the White Oak Initiative. If you have an interest in joining, please send your name, mailing address, email address, and if you are comfortable, your phone number, to the Forestry Extension office of the University of Kentucky at forestry.extension@uky.edu.

About the Author:

Jeff Stringer, Ph.D., is the chair of the University of Kentucky Department of Forestry and Natural Resources. He is also responsible for continuing education and research in hardwood silviculture and forest operations and serves as an editor of the *Kentucky Woodlands Magazine*.

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