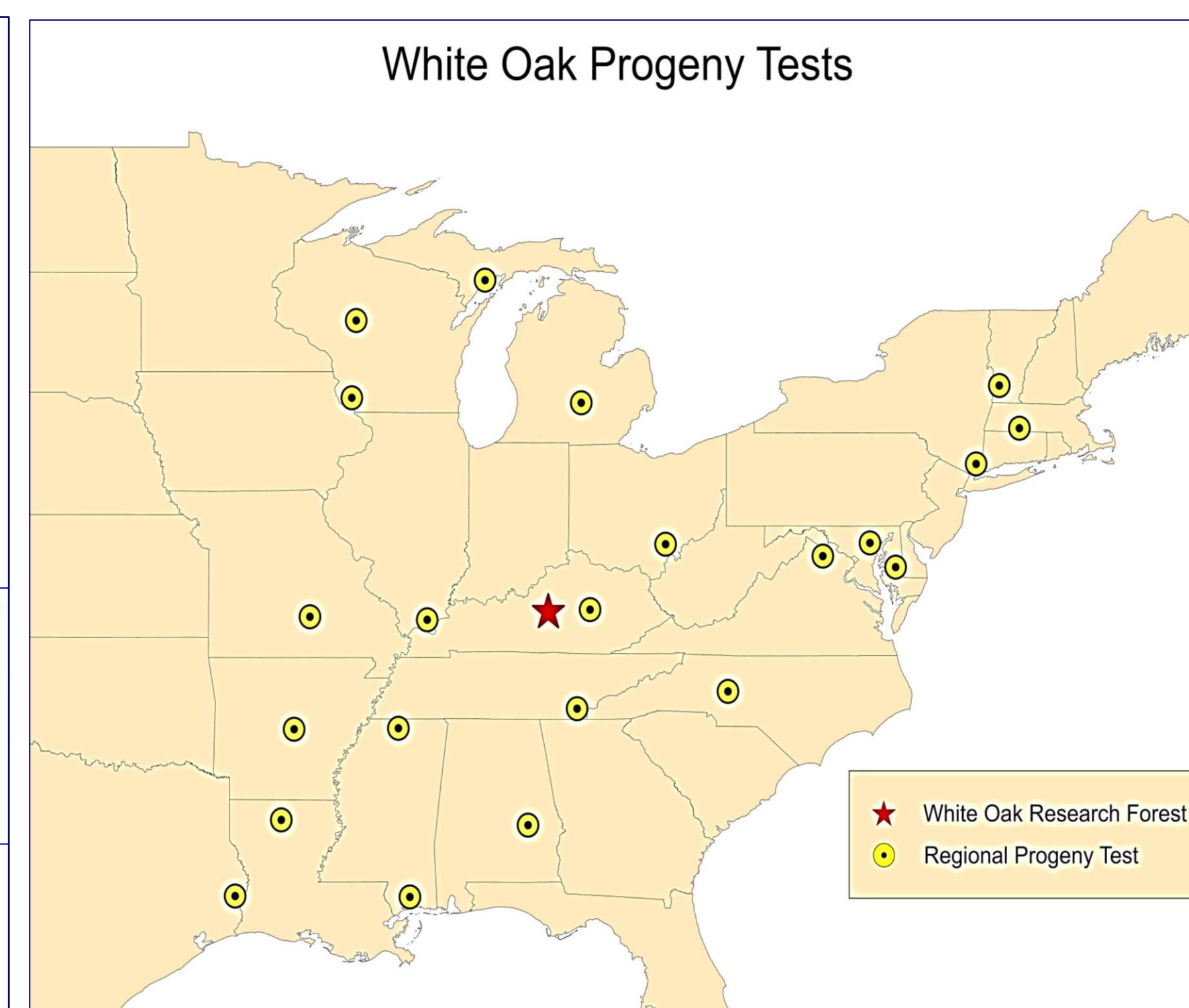
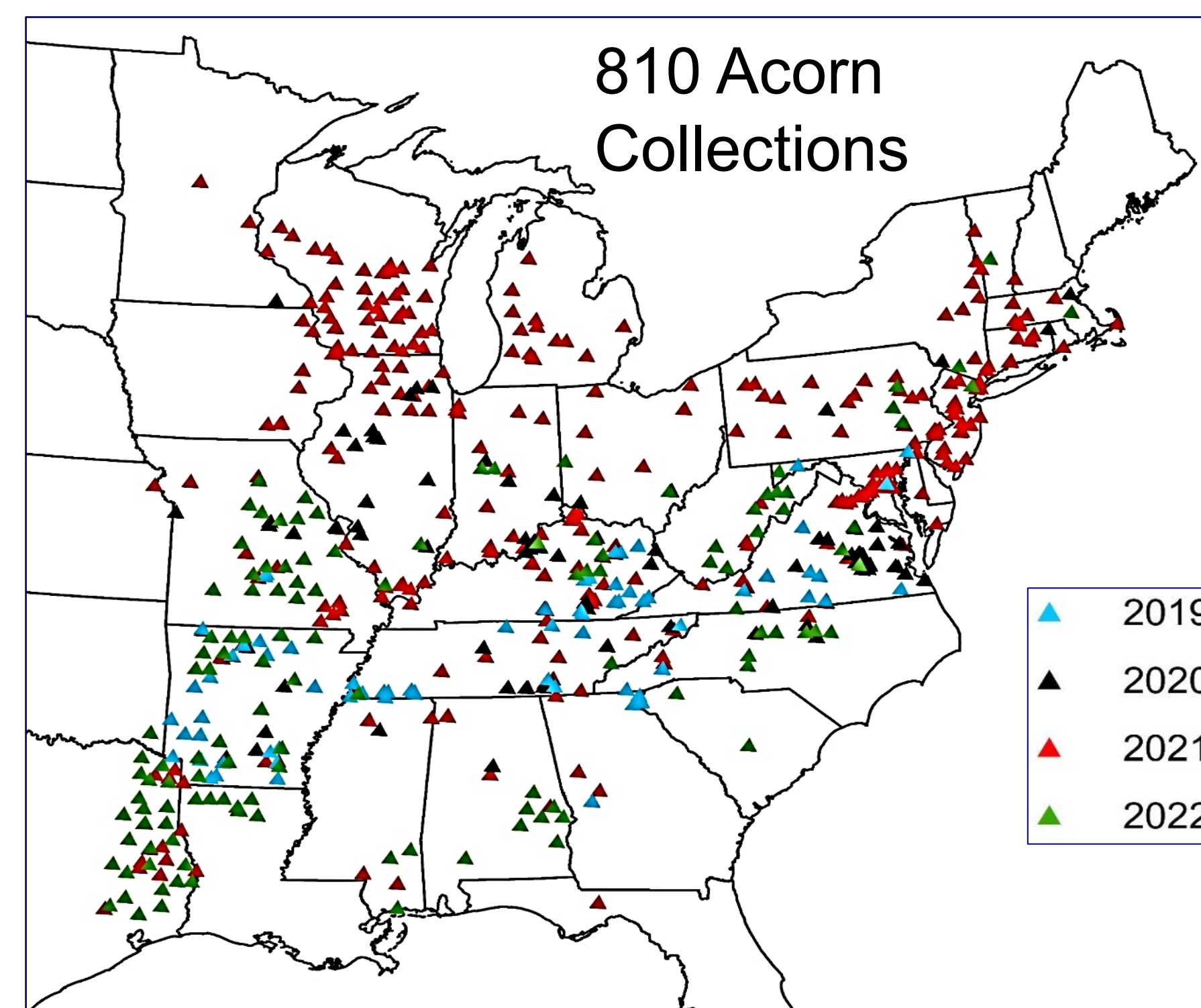


Independent Seed Orchard Program to Supplement White Oak Tree Improvement Efforts and Provide Forest Nurseries with Acorns that will Produce Superior Seedlings

The white oak genetics and tree improvement program (WOGTIP) was established to provide a sustainable supply of high-quality white oak seedlings via a traditional tree breeding program

Acorns collected from 2019-2022 were used to establish 22 regional progeny tests and one range-wide test



WOGTIP Acorn Production & Deployment of Superior Seedlings
Progeny test results are used to select superior trees for the creation of seed orchards where pollen mixing maintains genetic diversity and the acorns can go to state nurseries to produce superior seedlings

1. Grafted clonal seed orchards are created using superior parent material
2. Poor performing trees are removed from progeny tests which become seed orchards

Grafted and progeny tests converted to seed orchards will not be able to provide enough acorns to meet the demand for production of superior seedlings
Independent Seed Orchard Program was developed to address this problem

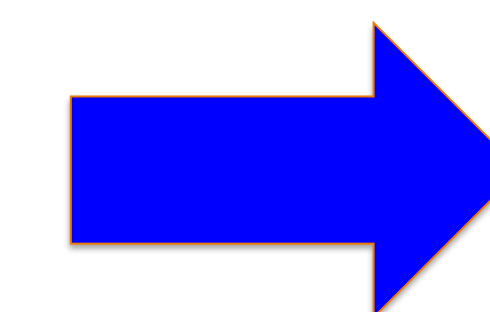
Independent Seed Orchard Program (ISOP)

ISOP is based on the idea that careful selection of superior seedlings from the nursery will result in superior trees in the seed orchards

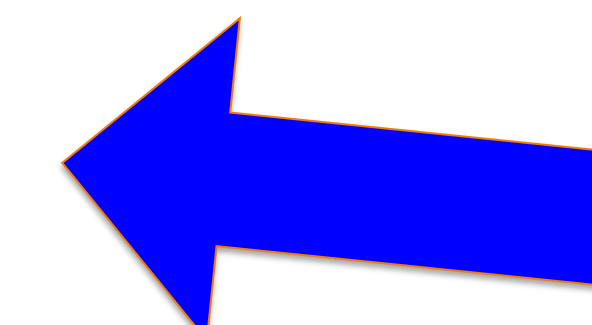
Independent Seed Orchard Program is being piloted in KY



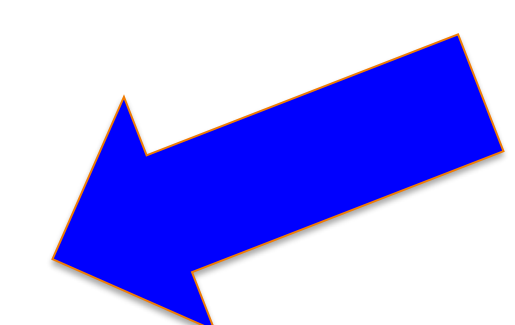
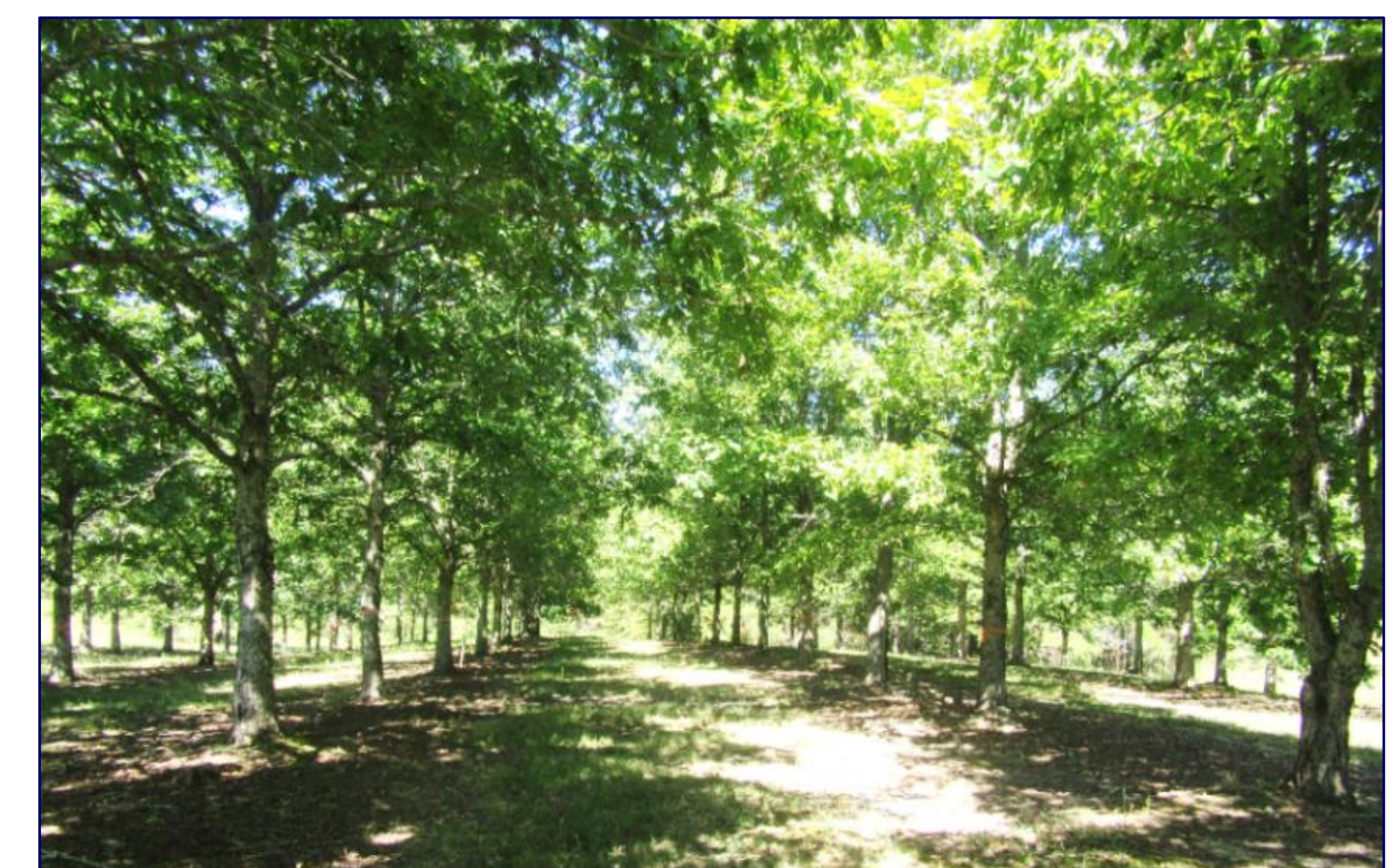
Best white oak seedlings in the nursery are provided at no cost to many landowners across the state



Landowners grow these super superior seedlings to create WOGTIP-certified seed orchards



Acorns produced go back to the nursery for production of superior seedlings



- ✓ Collaboration between Kentucky Division of Forestry (KDF), UK Forestry Extension and landowners
- ✓ 10-15 landowners enrolled per year until there are 100 half-acre seed orchards spread out across KY
- ✓ KDF Professional foresters visit with prospective landowners to collaboratively determine a ½ acre location and certifies it as a WOGTIP orchard
- ✓ KDF Nursery provides 100 super superior seedlings (top 1%) free of charge to participating landowners who plant and maintain the seed orchard
- ✓ KDF and UK Forestry Extension provide technical assistance to the landowners
- ✓ Success of this innovative program is built on good working relationships between KDF, UK Forestry Extension, State Nursery, & Landowners

Popular program: 12 participants in 2024, 16 in 2025 and a growing list of interested participants for years to come

private woodland owners, bourbon distilleries, forest industry sites, state owned properties, university-owned sites, non-profit site (Bernheim Forest), religious order sites, non-profit educational site

If you would like to develop an ISOP to support your state nursery contact:

Billy Thomas: UK Forestry Extension,
billy.thomas@uky.edu

Bridget Abernathy: KY Division of Forestry,
bridget.abernathy@ky.gov

<https://white-oak-genetics.ca.uky.edu>

