



The West Virginia Chapter of The American Chestnut Foundation NEWSLETTER



In the heart of American chestnut's natural range

August 2024

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Hampshire County Fair

Bernie and Linda Coyle set up a chestnut booth at the Hampshire County Fair in Augusta, WV. They not only manned the chestnut booth, but they signed in people with vegetable and plant entries. Linda had a number of potted chestnuts, some of which were started from seed that she obtained from walking through the Waddell orchard in Preston County last fall. Below is a picture of Linda in the chestnut booth. Bernie and Linda are great chestnut ambassadors.



Jackson's Mill Chestnuts

The state 4-H camp in WV is located at Jackson's Mill, partway between Jane Lew and Weston. There is an historic area at the mill that gives visitors a glimpse into the history of the region. The Jacksons settled in the area around 1800 and they eventually owned about 1,500 acres of surrounding land in Lewis County. From 1831-1842, this included **Thomas Jackson**, who later gained fame in the Civil War where he was given the

nickname, Stonewall Jackson. Throughout the years, the land has changed ownership. Only a small plot of land (5 acres) remained and was deeded to the State of WV for the purpose of creating a 4-H camp. The first camp was held in 1921 in what is now the historic area that features replica buildings from the 1800s.

Ten native American chestnuts were donated to Jackson's Mill by the WV chapter in each of two years, 2022 and 2023. Staff at the mill chose the site along the West Fork River. It is not an ideal spot as American chestnut is not a riparian species. On a trip to the mill in July 2024, only 4 of 20 trees remain, pictured below. The tallest tree is only about 3' tall. The trees are surrounded by stilt grass and that may be part of the problem. It will be interesting to see how well the four trees perform in the coming years.



Three of four surviving American chestnuts at Jackson's Mill.

Kingsford Charcoal Chestnuts

Many of use have used charcoal briquettes to grill hamburgers and hot dogs. Some of your briquettes may have been manufactured at the Kingsford Charcoal plant in Parsons, WV. That plant has been in operation since 1958 and produces nearly 125,000 tons of charcoal each year. The plant employs 110 people at the Parsons location.

Dee Stevens, environmental resource specialist with Kingsford, has been planting hybrid chestnut trees at the plant for several years. As of 2024, there are 51 hybrid chestnut trees that are thriving. Thanks to Dee for her continued planting.



View of hybrid chestnuts planted in 2024 at the Kingsford Charcoal plant.

Spotted Lantern Fly

The reason The American Chestnut Foundation exists is due to the invasive chestnut blight fungus (*Cryphonectria parasitica*) that was accidentally imported into the U.S. from Japan. While there are numerous other invasive species that are problematic to landowners, such as Emerald Ash Borer, and Spongy Moth/Gypsy Moth), one relatively new pest is the spotted lantern fly (*Lycorma delicatula*). This insect is a plant-hopper indigenous to parts of China and Vietnam. It has spread not only to Japan and South Korea, but it also has spread to the U.S. Its preferred host is Tree of Heaven (*Ailanthus altissima*), but it infests many plants, including soybean, grapes, stone-fruits, walnut, almond, and apples. It has been associated with more than 170 plants. In its native habitat of China, spotted lanternfly populations are regulated by parasitic wasps. Early life stages (instars) of the spotted lantern fly are characterized by spotted black and white nymphs that develop red pigmentation and wings as they mature. Adults have a black head, gray wings and red hind wings, and they can cause extensive damage to crops and ornamental plants. The piercing wounds caused by their mouth-parts and the honeydew waste they excrete are harmful to the health of the host plant. Honeydew can make decks, cars, patios and walkways sticky. Their feeding can cause leaves and young branches to wilt, thinning crowns, and can lead to host mortality. Spotted lanternflies lay 30-50 eggs, often covered with a grayish mud-like coating.

Spotted lanternfly is present in West Virginia. It was first detected in Berkeley County in 2019 and has since spread to several other counties, including Brooke, Grant, Hampshire, Hancock, Hardy, Jefferson, Mineral, Morgan, and Taylor. **Bernie Coyle**, president of the WV chapter has seen numerous instars around his home in Keyser. Bernie snapped a picture of the reddish-colored instars near his home as seen below.



According to the WV Department of Agriculture, this invasive insect can cause significant damage to various plants, including timber trees. There is not much information on this insect's damage to chestnut. Their impact on native hardwoods is still being studied.



Spotted Lantern Fly adult with its distinctive red hindwings. Photo courtesy of Scientific American.

If you spot a spotted lantern fly, it's important to report it to the West Virginia Department of Agriculture or your local WVU Extension office. The phone number for the Department of Agriculture office in Charleston is 304-558-3550. Another option is to report it to the WVDA bug-busters detection email at bugbusters@wvda.us. Please include a photo of the insect with the email.

How is The American Chestnut Foundation Restoring American Chestnut

TACF engages in a multi-pronged effort to create a disease-resistant American chestnut, including traditional breeding techniques, genetic modification, and reduction of fungal virulence.

The majority of TACF staff and volunteers are involved in a traditional breeding approach. Requiring a minimum of six generations of breeding, progeny from this program are selected at each generation to exhibit American characteristics and some level of blight resistance. Recent efforts include "best-by-best" crosses between individuals with high resistance. In addition, efforts are made to increase the range-wide genetic diversity of this growing population of trees.

TACF is also working with a variety of scientific partners to develop transgenic (introducing genes from other plant species) and cisgenic (introducing genes from other chestnut species of the same genus) methods to increase blight resistance, as well as other genetic methods such as RNAi (RNA interference) to impede growth of the blight fungus.

No matter the method, whether used independently or in combination, the goal is to produce American-type chestnuts capable of surviving and reproducing in the forest unassisted.

In addition to improving disease-resistance, TACF and its affiliates are working to conserve the genetic diversity of the species, assess susceptibility to other pests and pathogens (in addition to chestnut blight), and to understand the ecology of the species in order to prepare for landscape-scale reintroduction.

Germplasm Conservation Orchards in WV

Germplasm Conservation Orchards (GCOs) are orchards of native American chestnut trees. While all of the American chestnut trees planted in these orchards will contract the chestnut blight fungus and die, about half of the trees will send up sprouts and those sprouts will flower, producing both male (catkins) and female flowers. The male flowers from these trees can be used to pollinate the advanced hybrid trees at TACF's Mead-

owview Farm in southwestern Virginia to produce trees that have sufficient resistance to the chestnut blight fungus, have the form of American chestnut and adaptability to WV. As of 2024, there are 28 GCOs in WV, ranging from a few trees to 100. Below is a listing of the WV GCO sites. The WV county is listed in parentheses.

1. Riggleman Farm (Pendleton)
2. Sutton Dam (Braxton)
3. Terra Alta (Preston)
4. University Forest (Preston)
5. Summit Bechtel Reserve #1 (Fayette)
6. Summit Bechtel Reserve #2 (Fayette)
7. Queens (Lewis)
8. Fayetteville (Fayette)
9. Parsons (Tucker)
10. Chestnut Mountain Ranch (Monongalia)
11. Old Hemlock (Preston)
12. Chief Logan State Park (Logan)
13. Twin Falls State Park (Wyoming)
14. Pipestem State Park (Mercer)
15. Blackwater State Park (Tucker)
16. Kemmerling property (Jefferson)
17. Hollot property (Tucker)
18. Jackson's Mill State 4-H Camp (Lewis)
19. J. Nelson property (Boone)
20. Summit Bechtel Reserve #3 (Fayette)
21. Hemlock 1 (Upshur)
22. Hemlock 2 (Upshur)
23. McClain property (Randolph)
24. Calvin Price State Forest (Pocahontas)
25. Seneca State Forest (Pocahontas)
26. Greenbrier State Forest (Greenbrier)
27. Plant Materials Center (Monroe/Greenbrier)
28. Burnsville Lake (Braxton)

The sites are a mixture of private and public lands. While all 28 sites cannot be detailed in this newsletter, a few of the sites are highlighted here.

Sutton Dam. There are two GGOs planted near the Sutton Dam, just outside Flatwoods. Forty-seven American chestnut seedlings were planted in 2021 at the first location, and 36 were planted at a second location in 2022. These planting are done in conjunction with **Harrison Jenkins** and the U.S. Army Corps of Engineers. When planted, each tree was enclosed in a wire cage to prevent deer browse. Harrison has overseen the site selection, planting and maintenance of the trees. Harrison's father, **Jimmy Jenkins**, board member of the WV chapter, has worked along side Harrison to keep these

two orchards thriving.



Harrison Jenkins planting a chestnut seedling in 2021.

Old Hemlock. At a site on the Brandonville Pike in Preston County, 30 American chestnut seedlings were planted in 2022. The area was recently clearcut and 15 seedlings were planted on either side of a logging road. After a year, all the trees on the lower side of the road died while all the trees on the upper side survived the first year. An additional 15 trees were planted on the upper side in 2023 and the trees have thrived. Some of the trees are now 6'-7' tall and much taller than the 4' wire caging. **LeJay Graffious** is the caretaker of Old Hemlock and he assisted with site selection, planting and maintenance. In 2024, the 7'-tall blackberries were cut back to allow light onto the trees. LeJay manned the blade and cut back the blackberry bushes.



LeJay Graffious (left) with Robert Lemley and Amy Metheny cutting brush in 2024.



Dr. William MacDonald and Steve McClelland planted seedlings at the Old Hemlock site in 2022.



A view of the Seneca State Forest plant

West Virginia State Forests. In 2023, 300 chestnut seedlings were provided to **Travis Miller** with the WV Division of Forestry (DOF). Travis and crew direct-seeded 100 chestnuts in each of three state forests (SF), Greenbrier, Calvin Price and Seneca. The WV chapter supplied the nuts, tree shelters and stakes. As of early 2024, only four of 100 produced a seedling at the Greenbrier SF. Data was not available for the other two state forests. In 2024, the WV chapter supplied 200 American chestnut seedlings to the DOF. Eighty seedlings were planted at Seneca SF, 83 at Calvin Price SF and 37 at Greenbrier SF. The empty tree shelters at each SF were used for the 2024 seedlings.



Tree shelters at the Greenbrier State Forest.

McClain property in Pocahontas County. In November 2022, twenty American chestnuts donated by **Dr. Darrell Dean** of the WV chapter, were planted at this site in Pocahontas County, near Mace, a community about 16 miles north-northeast of Marlinton. Eight family members and neighbors helped with the planting. An additional 30 chestnut seedlings were planted in October 2023. **Robert Sybolt** and **Darrel Dean** of the WV chapter helped spearhead this GCO.



The 2022 McClain property planting group.

Burnsville Lake. In 2024, WV established its first 100-tree GCO. Ten trees from 10 different mother trees were planted at a site in Napier, off Route 19 between Flatwoods and Weston. Like the Sutton Dam site, this planting was in conjunction with the U.S. Army Corp of Engineers and the WV Depart-

ment of Natural Resources. The point person with this planting is **James Carson** with the Army Corp.



Six members of the crew planting at Burnsville Lake.

Queens in Upshur County. At two different sites, 30 chestnut seedlings were planted in 2021 and again in 2022 in Queens, a small, unincorporated town near Tallmansville, south of Buckhannon. **Walter Eiker** is the point person at this GCO.



The Queens 2021 planting crew.

Riggleman Family Planting. One of the very first GCOs established in WV was at **Glenn and Jeannie Riggleman's** farm along Route 220 in Pendleton County, outside Franklin. Glenn and Jeannie and members of their family helped establish 48 American chestnut seedlings in 2021. A few seedlings have been replanted to replace those that died. The Riggleman farm is above 3000' mak-

ing it an ideal chestnut site.



A few members of the 2021 Riggleman planting crew.

Summit Bechtel Reserve (SBR) in Fayette County. There are several chestnut sites at the SBR, but two of the orchards are GCOs. **Sam Muncy** has been the main driving force in the SBR plantings, along with **Sharon Cottrill**. **Dr. Lewis Cook** also has spent many days planting with local scout troops, roughing dead plants and replanting.



One of the SBR planting groups.

American Chestnut Symposium

The American Chestnut Symposium will be held 24-26 October 2024 at Cromwell, Connecticut at the Courtyard Hartford/Cromwell located at 4 Sebethia Drive in Cromwell. The theme is "***Rooted in Restoration, Connected Through Community***".

Full registration is \$225 for the early bird special. After 22 Sep, registration is \$275. Registration can be completed at TACF's website: tacf.org. The keynote speaker is **Sir Peter Crane**, President of Oak Spring Garden Foundation in Virginia, and the former Dean of the Yale University School of Forestry and Environmental Studies.