The West Virginia Chapter of The American Chestnut Foundation NEWSLETTER

In the heart of American chestnut's natural range

October 2025

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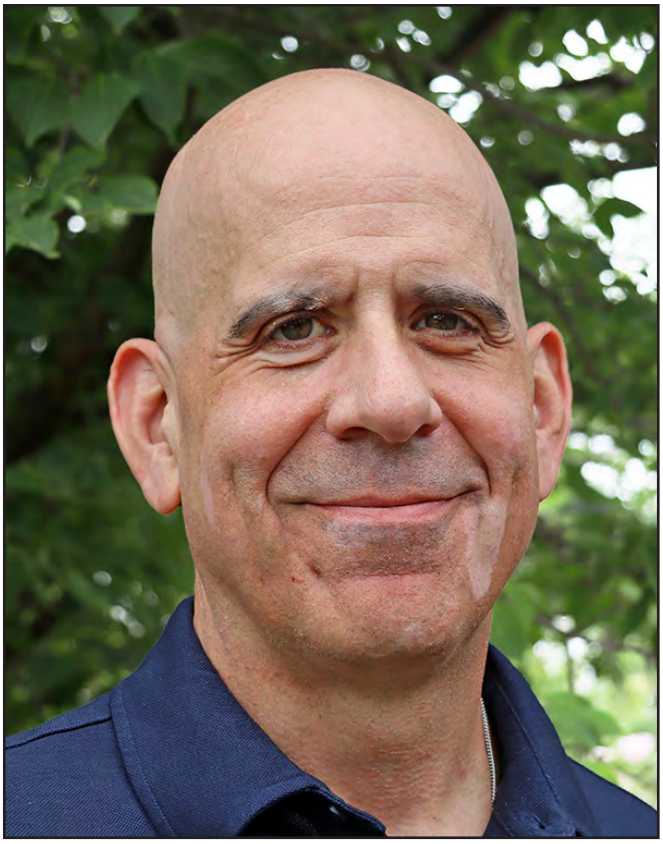
Table of Contents

TACF's New President and CEO

The American Chestnut Foundation's (TACF) Board of Directors is pleased to announce that **Michael Goergen** has been appointed as the organization's new President & CEO; he began his duties in mid-September 2025. He will succeed interim President & CEO **Bruce Levine**.



Michael Goergen

A strategic executive with more than 25 years of leadership in the forest products and climate sectors, Michael has driven innovation, sustainability, and transformative partnerships throughout his career. As Vice President of Innovation at the U.S. Endowment for Forestry and Communities, he spearheaded groundbreaking initiatives including the commercialization of cellulosic nanomaterials, development of the forest sector's first carbon accounting platform, and securing more than $45 million in funding to advance measurable climate solutions. Michael is eager to apply his expertise in research and development to advance the science of restoring the American chestnut. Building on a career of driving innovation and partnerships, he is committed to helping TACF accelerate progress toward developing blight-resistant trees and returning this iconic species to eastern US forests.

Previously, Michael served 20+ years at the Society of American Foresters,

including over a decade as CEO. Earlier in his career, he held leadership positions in forest policy and programs and has been a key voice on sustainability, green building, and public-private partnerships. He holds both a Bachelor and Master of Science from the State University of New York College of Environmental Science and Forestry (SUNY-ESF).

“Michael’s infectious energy and passion will inspire TACF to take our chestnut restoration efforts to new successes and I am looking forward to working with him and the chestnut community to accomplish our collaborative goals for the future,” said **Dr. Liz Kramer**, chair of the TACF Board of Directors.

“The American chestnut is more than a tree—it is a symbol of resilience and hope,” said Goergen. “I am honored to join TACF and work alongside our incredible scientists, staff, volunteers, and partners to bring this iconic species back to our forests and communities.”

TACF engaged Heidrick & Struggles, a leading global executive search and leadership advisory firm with a dedicated nonprofit and social impact practice, to assist in conducting the search for its new President & CEO.

Hampshire County Fair

Bernie and Linda Coyle hosted a chestnut booth in Augusta, WV at the Hampshire County Fair. Bernie indicated that the Paw Paw booth is now competing with chestnuts The common Pawpaw (*Asimina triloba)* is a small, native deciduous tree or large shrub found in the eastern United States, and southern Ontario, Canada. It is known for its large, tropical-looking leaves and sweet, custard-like fruit that tastes like a mix of banana and mango. Bernie indicated that the chestnut booth had a lot of foot traffic, and everyone wanted a tree!

Linda Coyle at the American chestnut booth at the Hampshire County Fair.

Cumberland Falls State Park

Cumberland Falls State Resort Park is a park located just southwest of Corbin, Kentucky, and is contained entirely within the Daniel Boone National Forest. The park encompasses 1,657 acres and is named for its major feature, the 68-foot-tall Cumberland Falls. The falls are one of the few places in the western hemisphere where a moonbow can frequently be seen on nights with a full moon.

Bernie and Linda Coyle hiked the State Park and found it a grueling hike, with lots of rocks and countless stairs. They did, however, locate a small American chestnut along the trail. Their efforts show that American chestnut can be found in the Appalachians, if you have take the time to look.

Linda Coyle with a young American chestnut on a trail in the Cumberland Falls State Park

Multi-State Chestnut Meeting

Since 1982, scientists who work on chestnut have gathered annually to share data on their respective areas of expertise. The multistate project falls under the umbrella of the USDA, and 25-35 members attend annually. Faculty members from universities, graduate students, federal and state employees and an occasional foreign scientist attend the meetings. Members of the group take turns hosting the meeting, and the 2025 meeting was hosted by **Susanna Keriö** from the Connecticut Agriculture Experiment Station (CAES). The meeting was held Sep 15-17 at the Marriott Hotel in Cromwell, CT.

Scientific presentations were made during the first day. Topics ranged from the newly-discovered chestnut bee to improved disease resistance in chestnut to fungicides to control Phytophthora root rot. Field trips to chestnut orchards at the Sleeping Giant site and the Lockwood Farm highlighted the second day of the meeting. Long-time chestnut researchers (now retired), **Dick Jaynes** and

Some of the meeting members at the CAES meeting in CT.

Brief excerpts from selected talks are highlighted below.

Susanna Keriö opened the meeting by introducing a new CAES/West Virginia University (WVU) cooperative project on biological control. Susanna will utilize 50-year-old hypovirus trials (attenuated strains of the chestnut blight fungus that have reduced virulence). Chestnut trees at both Sleeping Giant and Lockwood farms will be sampled and new hypovirulent strains will be produced for the CT orchards. The strains will be tested in both greenhouse and field trials. The orchards will be monitored for transmission of the new strains. Lastly, workshops for the public will be organized. Susanna will work in conjunction with Amy Metheny from WVU Bark samples will be collected from the trees in CT and sent to Amy who will isolate the virulent forms of the chestnut blight fungus and then convert them with hypovirulent strains. The converted strains will be sent back to CT where they will be used to treat cankers on American chestnut trees. The resource team for this project will include the CAES team (**Susanna Keriö, Nate Westrick, Eli Ward**); **Elena Karlson** (USDA, Hamden, CT); **Jack Swatt**, (CT-TACF) and **Amy Metheny**, (WVU).

Nate Westrick (CAES) presented on ecological implica-

tions of historical and future approaches to chestnut blight biological control. Nate provide a brief overview of the history of chestnut blight and control efforts.

- 1904 Chestnut blight was discovered in New York City.
- 1938 Chestnut blight was discovered in Genoa, Italy.
- 1950 Nine million acres of American chestnut were dead from the chestnut blight fungus.
- 1951 Coppice sprouts in Europe were found to be 'healing'.
- 1960s The first hypovirulent strains were isolated in Europe.
- 1969 CAES imported hypovirulent strains from Europe into the U.S.
- 1975-77 Hypoviruses were discovered to be transmissible through dsRNA.

Hypoviruses are dsRNA molecules found the membranes of the chestnut blight fungus. These dsRNA molecules require a living host, and they are transmitted through fungal fusion (anastomosis) or spores.

Nick pointed out the differences between the use of hypoviruses in the U.S. and Europe.

U.S.

- Work centered on growth suppression and very severed strains of the hypovirus were used (Ep713).
- There is high diversity of fungal strains.
- The population of American chestnut is vast, mostly in wild landscapes

Europe

- Field populations are dominated by relatively mild strains of the chestnut blight fungus (Euro 7).
- There is much less diversity of the chestnut blight fungus.
- Chestnut blight is managed mostly in stands/orchards that have been coppiced.

Nick concluded that mild hypovirulent strains plus low diversity of the chestnut blight fungus plus favorable stand management yields successful results.

Nick asked the question, 'why now reassess biological control?

- There are more resistant hybrid varieties of chestnut.
- Beech leaf disease is thinning canopies throughout the northeast offering potential opportunity for chestnut.
- We have more knowledge about hypovirulent strains.
- There is a universal donor for hypovirus that can be transmitted across diverse strains of the chestnut blight fungus.

Nick is working on a long-term American chestnut stand in Hamden, CT. American chestnut was planted in 1976, and beginning in 1978 cankers were treated with a slurry of several types of hypovirulent strains. In early 2025, cores were taken from chestnuts, and they have found that after 50 years, hypovirulent strains are still recovered--mostly from trees that exhibit intermediate health (cankered but still living).

Tracy Zarillo (CAES) reported on the chestnut bee (*Andrena rehni*) that was thought to be extinct. In the family *Apidae*, there are 20,000 described bee species in the world, of which there are 3,600 in the U.S. Nearly 400 species have been identified in CT. Unlike honeybees that live in colonies, the chestnut bee is a solitary bee. The female lays eggs in the ground tunnels. The tunnels have side branches where eggs are laid (1 per cell). The female leaves food for her offspring, but the female either leaves or dies before her eggs hatch.

The chestnut bee is smaller than a honeybee. It was named by **Henry Lorenz Viereck**; he named it for a friend, **James Rehn**.

In 2018, a wildlife biologist in MD noticed a bee on a chinquapin. The bee was keyed out, and inquiries were sent out to other entomologists. In 2019, a survey was conducted in the chestnut orchard at Lockwood Farm. Chestnut bees were identified again, and the bees were verified by a laboratory in MD. Surveys were increased in 2022, 2023 and 2025 in MA, CT, NH and RI. The bee was found at 10 of 53 sites in CT and MA on seven species of *Castanea*. This bee is a specialist on all chestnut species.

In their study they found that mining bees and sweat bees visited chestnut most frequently while longhorn beetles and soldier flies had the highest rates of carrying chestnut pollen.

Jared Westbrook (TACF) reported on recurrent genomic selection for improved disease resistance and forest competitiveness in American chestnut. Jared stated that chestnut in North America has been around for 40-50 million years. Asian chestnuts were imported into the U.S. in the early 20th century. The chestnut blight fungus, *Cryphonectria parasitica* was found to be 22 million

years old. Asian species and *Cryphonectria* have been associated for millions of years--hence the resistance in Asian species.

American chestnut is functionally extinct due to the impact by the chestnut blight fungus. Chestnut blight is not the only disease of chestnut. *Phytophthora* species colonize the tree roots and the trees die. Phytophthora root rot (PRR) has predominately been a southern U.S. problem, but as the world warms, PRR is moving north.

The American Chestnut Foundation was founded in 1983 and has about 5,000 members in 16 state chapters. The goal is forest competitiveness for American chestnut. What does success look like?--(a) blight resistance; (b) resistance to PRR; and (c) forest competitiveness. TACF has been using backcross breeding centered on two trees: 'Graves' (backcross tree that is 67% American) and 'Clapper', a 50/50 American/Chinese tree.

'Graves' tree, injured in a storm, was planted by Arthur Graves in 1934. It is a F1 hybrid, and one of TACF's two founder trees.

The 'Clapper' tree was planted by Russell Clapper in 1953. It is a BC1 ([Chinese x American] x American) from Carterville, IL.

At each generation, the best trees are selected using the following seven traits:
1. Is the main stem alive?
2. Are cankers >15 cm?
3. Are cankers sunken?
4. % Canopy dead.
5. Is there exposed wood?
6. Is the fungus sporulating?
7. Are there stump sprout?

Out of 3,500 trees, 500 have 70% American ancestry and >50% resistance. TACF has done a lot of genotyping, and they have found that there are 57 genes involved in resistance to the chestnut blight fungus and 17 genes involved in *Phytophthora* resistance.

Jared referenced the chestnut trees at the Lesesne State Forest in Virginia. Trees planted in 1990 are now 76' tall. Trees planted in Meadowview in 2006 are 49' tall. Selection for competitive growth is an important additional objective for TACF. Using the height/site index, Chinese chestnuts are 0.8; Backcross trees are 1.0 and American chestnut is 1.2, significantly better than the other two lines.

TACF is now crossing the Best parents, using genotyping to select the best 'kids'. The best 20% will go to seed

orchards (two of these orchards will be planted in WV at Burnsville and Parsons) while the other 80% will go to field trials. The seed orchards will be inoculated with virulent isolates of the chestnut blight fungus five years after planting to assess resistance. Trees in the field trials will not be inoculated, but nature will be allowed to take its course. TACF aims to double its population-average resistance and increase forest competitiveness within the next decade. Trees in the recurrent genomic selection program will vary in resistance, but variation is an asset for restoration

Jack Swatt, CT-TACF presented a novel approach to pollinating isolated American chestnut tees. In CT, American chestnut trees are often found is disturbed area, and they frequently find unpollinated trees. In 2024, they tested a novel approach by placing catkins in plastic milk jugs that wee raised into the canopy with ropes. The jugs were left in the trees for 1 week. Five trees known to be unpollinated were tested in 2024. Four of the five trees yielded fertile nuts (30 from Salem, 2 from Roxbury, 22 from Roxbury West and 14 from Seymore). It is a low cost method that is quick and easy.

Steve Jeffers and Haiying Liang, Clemson University gave an overview of their *Phytophthora* sampling 2024-2025. They continue to assay for *Phytophthora* spp. sent from across the county. In 2024, they received 739 samples from 12 states. Forty percent of the samples were positive for *Phytophthora.* As of the Sep 2025, they have only received 8 samples, all from Virginia with two positives. Their protocol is to add soil to plastic tubs; the tubs are flooded with water, and *Phytophthora* isolates are identified on baited material--often leaves.

Fungicide trials continue at Clemson. They are evaluating registered oomycete-specific fungicides (*Phytophthora* is an oomycete) to manage Phytophthora Root Rot (PRR) in chestnut orchards. The most consistent products are phophonates, Aliette®, Reliant® and Phostrol®.

Isabel Munck, U.S. Forest Service, Durham, NH. She is looking at the effect of silvicultural treatments and forest type on survivability of chestnut seeds. She is investigating how to establish chestnuts in the forest and she hopes to partner with universities, TACF and land conservation agencies to restore American chestnut in forested sites. Not much is known about chestnut silviculture in New England. Isabel chose two fores types, oak-pine and northern hardwoods. She initiated patch cuts, group selection and shelterwood cuts along with no treatment. The patch cuts were >2 acres. The group selection were small clearings and the shelterwood cut was residual trees from a clearing. Chestnut seeds (N=635) were planted in May 2025--30 nuts at each site on a 8' spacing. Tree shelters were used and she measured emergence in early September. Emergence was much better in the northern hardwoods (83%) versus the oak-pine areas (34%). Drought this year impacted emergence.

Patricia Fernandes, State University of New York. She is working on developing a transgenic blight tolerant Ozark chinquapin. This is an upright tree that can grow to 70'. It produces 1 nut/bur. This tree is also impacted by chestnut blight and like American chestnut it is functionally extinct. Patricia crossed an Ozark chinquapin with a transgenic American chestnut. The oxalic oxidase gene (OXO) was inherited in 30%-40% of the nuts--the expected percentage is 50%. The OXO trees were planted in 2022 along with non-OXO trees (39 each). As of 2025, there are 19 OXO trees and 15 non-OXO trees surviving. Height and diameter of the trees were measured in2025 and the non-OXO trees are larger and taller than the OXO trees.

Vinny Varsalona, Reinhart University, Georgia. Vinny is attempting to detect *Cryphonectria* hypovirus 1 from trees at the Lesesne State Forest in Virginia. Trees at Lesesne were planted in the 1960s from Connecticut stock. It boasts a 10-acre, mature F1 forest with thousands of backcross trees. Some of the trees were inoculated in the 1970s with hypovirulent isolates by Gary Griffin from Virginia Tech. Vinny wants to test high performing trees for the presence of hypovirulent isolates by phenotype and qPCR. He chose four trees and sampled four cankers per tree for a total of 160 isolates. Phenotypic results suggest that CHV1 is predominant throughout the chestnut forest at Lesesne.

A full-day trip followed the scientific presentations. Meeting attendees were taken to **Sleeping Giant State Park** and **Lockwood Farm**.

Arthur Graves, after whom the 'Graves' source of resistance is named, established the Sleeping Giant Chestnut Plantation in 1930, and planted hundreds of chestnuts over the years. He sold the land to the Connecticut Agricultural Experiment station in the 1940s, but continued to work with the chestnuts at the plantation until his death in 1963. The plantation holds specimens of all species of chestnut and many hybrids, including the

'Graves' tree.

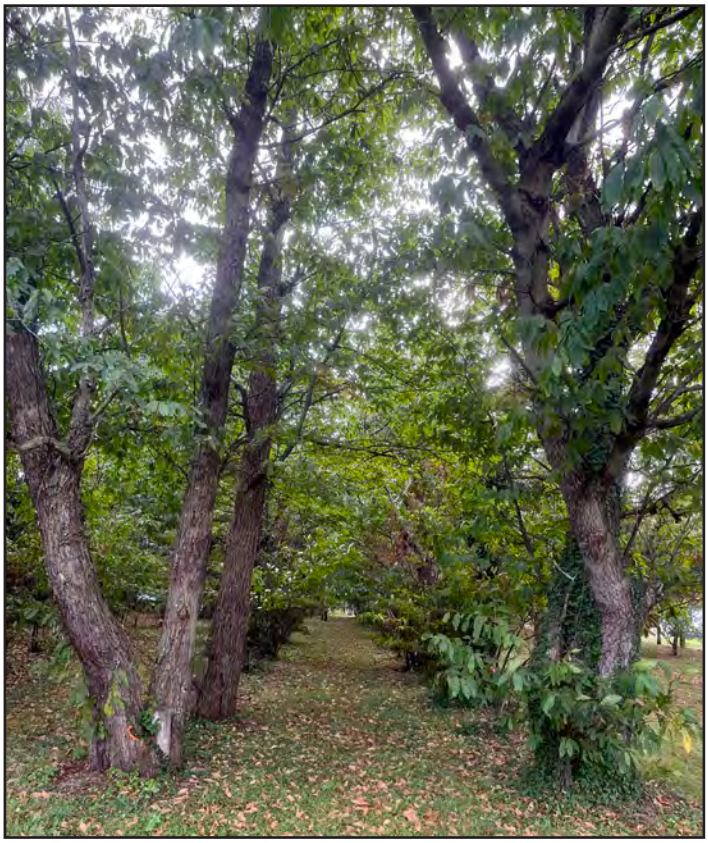
Susanna Keriö stands in front of 'Mahogany', planted in 1930 at Sleeping Giant State Park. The tree is from Northeast China, and it is the grandmother of the 'Graves' tree.

Sleeping Giant was planted in 1937. It is 60.3' tall; it has reached its maximum height. It is a Chinese x (Japanese x European) hybrid.

Lockwood Farm is named after William Raymond Lockwood, a Norwalk resident who willed his 56-acre estate to The Connecticut Agricultural Experiment Station in 1900.

Lockwood Farm has a history of being a site for American chestnut research and restoration with 70 American chestnut seedlings planted in 1976. The farm also has hybrid chestnut clones from a 1946 USDA cross featuring 'Clapper' and 'Graves' lineages, which are crucial for ongoing breeding efforts to develop blight-tolerant trees for nut production and ecosystem restoration.

Hypovirulent isolates were deployed on Lockwood Farm chestnut trees in the late 1970s/early 1980s. Trees exhibit superficial cankers in 2025, signs that hypoviruses are active 45 years after deployment.



There are several American chestnut plots at Lockwood Farm. This is a picture of two rows of trees in Plot 2.

'Scientist Cliffs' is a chestnut tree that was grafted by Richard-Jaynes in 1959 with scions from a large surviving American chestnut in Scientists Cliffs, Maryland. The scions were grafted onto Chinese chestnut seedlings. A few survived and one was planted at the Lockwood Farm. This survivor is likely the largest surviving grafted American chestnut in Connecticut. It was 32" in diameter at breast height (dbh) and 45' tall in 2021.

Susanna Keriö stands in front of the CT State Champion American chestnut. This tree is a sprout from Eyvind Thor (TN). The original tree was treated with hypovirulent isolates, but it eventually died. The tree sprouted, and this is one of the sprouts.

Dr. Richard Jaynes, (left with **Dr. Jared Westbrook** from TACF) and **Dr. Sandra Anagnostakis**, long-time chestnut researcher, held a Q&A session at Lockwood Farm. Jaynes retired from CAES in 1984; he is still active raising Christmas trees and helping out with the family nursery. Anagnostakis still works on chestnut trees at Lockwood.