

UPDATES FROM NE-1333 Meeting 2018

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TACF's Sara Fitzsimmons led field tours of two different chestnut plantings. Here she describes the success of a B_2F_2 silvicultural trial planted in 1997 on PA Gamelands. Next, the group visited a large B_3F_2 seed orchard on the back side of PSU's arboretum property.



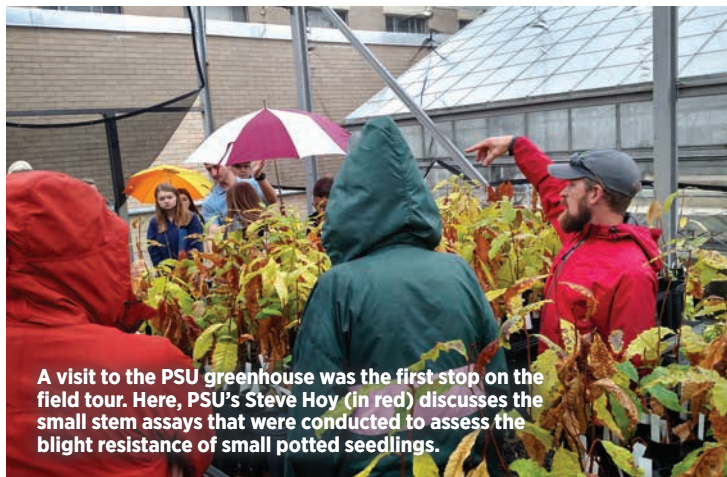
For 36 years, a dedicated group of chestnut scientists has met every year as part of a US Department of Agriculture (USDA) Cooperative State Research, Education, and Extension Service (CSREES) regional project. Many of the project collaborators have been involved since the project began in 1982.

That said, this is a welcoming group and the annual conference is open to participation by anyone working on American chestnut-related research. The current project, NE-1333: Biological Improvement of Chestnut through Technologies that Address Management of the Species, its Pathogens and Pests, is in its final year. It has been renewed and will continue on next year under a new project number (NE-1833).

This year's meeting took place September 6-9, 2018 at the Nittany Lion Inn at The Pennsylvania State University (PSU) in State College, PA. Dr. John Carlson and members of his lab graciously hosted the group and put together a packed program. In addition to the research presentations,

participants enjoyed a tour, reception, and dinner at the Penn State Arboretum, led by Arboretum Director (and TACF's Senior Science Advisor) Dr. Kim Steiner, as well as a field trip to several local chestnut sites of interest, led by TACF's Director of Restoration Sara Fitzsimmons.

There were over 20 research presentations given during this year's NE-1333 meeting. Topics ranged from genetic mapping to grafting, and true to the project's title, they covered American chestnut, chestnut blight, *Phytophthora*, and investigations of additional fungi found on chestnut.



A visit to the PSU greenhouse was the first stop on the field tour. Here, PSU's Steve Hoy (in red) discusses the small stem assays that were conducted to assess the blight resistance of small potted seedlings.

- Dr. Sandy Anagnostakis reported on the extensive chestnut collection at the Connecticut Agricultural Experiment Station (CAES), which includes a wide



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variety of species, hybrids, and cultivars. It is the largest collection of its kind in the US and now that Dr. Sandy is retired, the future of the collection could become uncertain. Establishing similar collections in secure locations is worth considering, and material from the CAES collection can be made available for this purpose.

- Dr. Hill Craddock's group from the University of Tennessee at Chattanooga presented on a variety of projects, including work by graduate student Trent Deason on grafting trees for germplasm conservation. This work was funded in part by a 2017 external grant from TACF.
- Hannah Pilkey, a graduate student with SUNY-ESF's American Chestnut Project, presented on her experimentation with various methods of highly conservative pollen collection and storage. These included use of a pollen vacuum with various filters, which is an interesting and promising new approach.
- Dr. Matt Kasson, Mark Double, and others from West Virginia University (WVU) reported on work with the new super donor strains of hypovirulent *Cryphonectria parasitica*. These strains have been engineered to overcome vegetative incompatibility barriers to natural spread and are being tested on regulated sites.
- Dr. Steve Jeffers and Andrew Gitto presented on their ongoing *Phytophthora cinnamomi* research at Clemson University, including development of an excised stem assay for *Phytophthora* resistance. The assay project was also submitted to TACF's External Grants program and awarded funding during the October 2018 TACF Board meeting.
- Dr. Laurel Rodgers and some of her undergraduate students from Shenandoah University compared fungi growing on American, Chinese, and hybrid chestnut trees. One of the more intriguing fungi Dr. Rodgers found was *Gnomoniopsis smithogilvyi*, which was not previously known as a chestnut pathogen in the US. The same fungal species was also discussed by Emily Dobry from PSU, who isolated the fungus as the cause of atypical cankering on American chestnut. There was some discussion and suspicion that this was perhaps a new classification of an otherwise known fungal species, however this was not resolved.

Notes on all presentations were taken by Secretary Mark Double, who has taken exceptional minutes for these meetings since they began in 1982. With retirement planned for December 2018, this was his last meeting as Secretary. He has long been the unofficial photographer for the group as well, and his annual humorous presentation of photos and captions from the previous years' meeting is always a high point on the agenda. Sara Fitzsimmons honored him with a similar presentation, and he was heartily thanked for his years of irreplaceable service.

For more information and minutes from this meeting, or any of the 35 preceding meetings, please visit: <https://ecosystems.psu.edu/research/chestnut/meetings/crees-ne-projects>

Pure American Program

Beginning this February, The American Chestnut Foundation will once again be selling pure American seedlings in bundles of 10, 25, and 50.

TACF members can begin placing online orders February 1, and will open to the public February 15 (while supplies last). Members with email addresses will receive a link on Wednesday, January 30 to access the order form. Those without email may place their order by calling the National office at (828) 281-0047.

Growing pure American chestnut trees is a wonderful learning experience. Some can survive many years and may even produce seeds. However, the trees are susceptible to blight. If infected, they have the potential to re-sprout and begin a new process.

This is a very popular program and the seedlings sell out quickly. Distribution range is limited to states east of the Mississippi (no exceptions). Orders will be mailed early April.

PRICING FOR PURE AMERICAN SEEDLINGS:

Only sold in quantities of 10, 25, 50 - includes shipping by USPS

10 seedlings - \$65.00
25 seedlings - \$150.00
50 seedlings - \$250.00