

Spring Growers Meeting

Date: Saturday, April 14th

Time: 8:30 a.m. to 2:30 p.m.

Cost: \$15 at door for lunch/coffee

Location:

General Studies Auditorium

Mont Alto Campus

1 Campus Dr, Mont Alto, PA

Please RSVP by April 12, 2018

mail@patacf.org or 814-863-7192

Meeting Program

8:30 – 9:15 AM	Coffee and Donuts
9:15 – 9:30 AM	Welcome: Clark Beebe, Pres.
9:30–10:45 AM	Mike Aucott, Mike Manes, & Dave Armstrong / Q & A
10:45–11:00 AM	Break
11:00–12:00 PM	Tom Saielli / Q & A
12:00 – 1:00 PM	Lunch (Please RSVP)
1:00 – 2:30 PM	Beth Brantley / Walking tour



Program

Hunting American Chestnuts — Longtime members, Dave Armstrong, Mike Aucott, and Mike Manes will share their strategies and experiences hunting American chestnuts in the wild. We are highlighting their efforts to encourage others to join TACF in identifying and conserving 3000 new and unique sources of American chestnut; 250 of which will represent Pennsylvania and New Jersey — beyond the 200 sources already conserved in our Chapter.

Tom Saielli, Mid-Atlantic Regional Science Coordinator

— *Phytophthora cinnamomi* and the American chestnut. Tom will discuss the history and ecology of *P. cinnamomi*; and some strategies for managing it in orchards. He will also discuss efforts to incorporate Phytophthora resistance into the TACF breeding program.

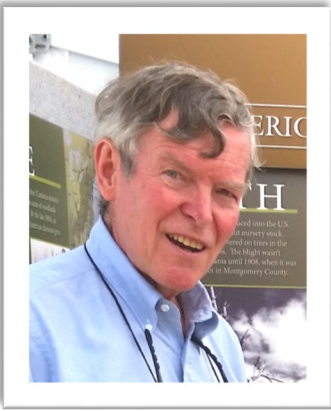


Dr. Beth Brantley, Associate Teaching Professor of Forestry at Mont Alto Campus,

will lead a walking tour of plantings at the Mont Alto Campus including: the Mont Alto Demonstration Orchard, established in 2000 and a USDA Blight-Resistance Trial from 1937 in Michaux State Forest.



Mont Alto Campus is a living classroom for forestry adjacent to the historic Michaux State Forest. Michaux encompasses more than 85,500 and is considered Pennsylvania's "cradle of forestry."



President's Corner
Cultivating Member Resources

First, I'm pleased to report that two more members joined our effort to make calls to other members thanking them for their support. Thank you to Larry Yozwiak and Mac Heebner. We greatly appreciate their stepping up and applaud their efforts. If anyone else wants to join their ranks, we welcome your help. Note that their first calls are to members without e-mails. They ask for e-mail addresses if they have them. (They assure them that e-mail addresses are not sold, traded or given to any

other organization ever.) Then they ask them for their story—why did they join; what motivates them to continue?

Next, I'll pose a different question: What talents do you have that you would be willing offer our organization when specific needs arise? I ask because we were recently presented with a very generous offer from a member granting us continued access to a planting in case the land changed hands. Our problem was none of us are lawyers; we read the contract but were not confident that there were no terms of art that we did not understand.

So my question is will you volunteer your skills when needed? We would like to create a database of member resources to call upon when required. For instance, with the above contract it would have been nice to have a list have list of members with the legal background to help review the document. In another instance, we might need the help of a graphic designer to help develop outreach materials. Or an inventor to help build wind-proof clamps for our table top displays. Use your imagination and volunteer your skill!

We are not asking for a full time commitment. As each instance arises, we will reach out and ask if you are available to help. You would not be locked in; it is just a starting point. An organization of our size requires every type of expertise at some point. The goal is to reduce our expenditures on outside expertise. To that end, we invite our members to send us their business cards or descriptions of your talents. We will add this information to our database for the next time we are searching for specific skills or businesses.

Sincerely,
Clark Beebe,
President

**PA/NJ Chapter Volunteers
Featured in The Chestnut Journal:
Winter 2018**

We want to join TACF celebrating the leadership and hard work on behalf of TACF. Partnering with the Anthracite Outdoor Adventure Area (AOAA) and Northumberland County's Conservation District, the Carbaughs helped bring to make the American chestnut part of this mine land restoration.



Left to right: Mary and Blair Carbaugh delivering nuts to Steve Hoy from their 2017 growing season.

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Chapter News

Volunteer Spotlight: Mac Heebner

By Jean Najjar, Chapter Administrator

Three times a year we do mailings to our membership: spring and fall newsletters, and a ballot letter in the fall. Prepping these mailings is time consuming and repetitive, so I am particularly grateful to have volunteers like Mac Heebner, who come into the office to help. Mac is a fascinating guy with loads of stories about his experiences working for the National Park Service (NPS), that help make the time fly.



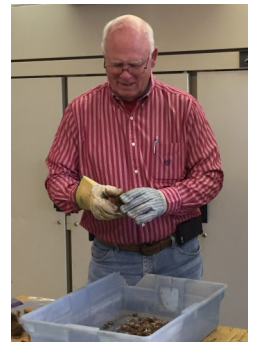
the NPS developed the Natchez Parkway, to open up the historic trail between Natchez and Nashville to the public, by creating a 300 mile paved byway, restricted to automobiles.

It was the custom of the NPS at the time to rotate their rangers through parks every 3 years, so Mac got to work in a lot of cool places including: The Lava Beds Nat'l Monument in California, Haleakalā National Park in Maui, and the Linden B Johnson Memorial Park in Johnson City, Texas.

He returned to Pennsylvania, as Chief Ranger at Gettysburg National Park in 1988. He retired in 2000 but stayed in the area and got involved with PA-TACF when an F2 orchard was established at the Sachs Covered Bridge -- joining TACF in 2006.

Mac grew up in State College and landed his position with the NPS in 1969, after getting his degree in Park Administration at Penn State. As was standard for new NPS employee, he completed a practicum year in New York, stationed at the Statue of Liberty, Fire Island, Castle Clinton Island and Grant's Tomb. Afterwards, while working at Shiloh Military Park, he got his Masters at George William College in Outdoor Education which led him to a position in Tupelo, MS where he was in charge of setting up outdoor educational programs at parks along the Mississippi and Natchez Parkway. *Point of interest:*

Mac and his wife Donna moved back to his childhood house in State College in 2015. He will tell you that he doesn't move as fast since a biking accident back in 2008 but he is still active as a volunteer in the greenhouse, office, and at outreach events. Many thanks to Mac and his best friend and wife Donna for their continued support of our mission.

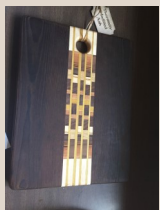


Volunteers and Handcrafted Contributions

By Jean Najjar, Chapter Administrator

We want to take this opportunity to thank the craftsman who support our organization with contributions of their wood working talents.

Longtime supporter, **Chris Ditlow** has been crafting furniture, cutting boards, and more, for many years. He specializes in wood engraving and has featured our logo on many a beautiful table and bench. For the PA Farm Show Chris donated a number of cutting boards and wooden



spoons. He also helped us out by updating our "id that wood" board, that we take to many outreach events. You can check out pictures on our website.

To see more of Chris's work visit his website: Lazerleaf.com

New member and wood hobbyist, Daniel Vodzak reached out just weeks before the PA Farm Show with a donation of hand mirrors that he crafted from a variety of woods he had in his



wood shop. They are really lovely and quite unique these days. is also a new member

Steve Nolt, is a relatively new member introduced to us by our good friend Merv Feathers. Steve has been volunteering at Ag Progress Days and the Farm Show for a couple of years. He crafted the chestnut bench in this photo



Left to right: Steve Nolt and Merv Feathers at Penn State Ag Progress Days.

as a fundraiser at Ag Progress Days and a similar one to our effort at the PA Farm Show. Steve handcrafts rustic pine and cedar log furniture -- all custom made. Steve is old order Mennonite, so there is no website to visit. You will have to visit his wood shop -- **Elkhorn Log Furniture** in Williamsburg, PA.

Make an appointment: **814-793-0142**

Demonstration Planting at Pohatcong Township School, Phillipsburg NJ

By Kristin Smith — 7th & 8th Grade Science Teacher

In the spring of 2016, Pohatcong Township School was fortunate enough to have representatives from The American Chestnut Foundation (TACF) led by Pohatcong resident and member Les Nichols visit our school and plant six chestnut trees. The grassy area chosen in front of the building is now graced with two American Chestnuts, two Chinese Chestnuts, and two American-Chinese Chestnut crosses.

Our 7th grade students are currently involved in the data collection concerning the trees. They measure the trees using the metric and standard system and record the data in a Google Form that converts the information into a table in Google Sheets. Our school website features the data along with pictures of the initial plantings.

The students have used activities provided by TACF and featured in the TACF publication entitled, "The American Chestnut- Life, Death, and Rebirth."



One such activity was the student page, "Punnett Square Problems."



The great thing about this publication is its usefulness in the study of life-genetics, cells, plants, and environmental stewardship. It has been a very useful and valuable tool that nicely ties into our curriculum and the Next Generation Science Standards.

It is my hope that going forward, our students will carry this information and experience to tend to trees and gardens of their own as adults,

as well as have an appreciation of protecting our natural resources, especially one that is so deeply ingrained in our American heritage.

Side Note on Inspiration:

This demonstration planting was the inspiration of Les Nichols, a long time member and NJ resident.

The Pohatcong Township School is right down the street from Les's home and driving by the sunny field in front of the school each day got him to thinking it would be a good site for planting chestnuts and a good opportunity to share the story of the American chestnut. The principal and teachers agreed. Les connected the Principal to our Chapter office and we got the process rolling to have the project approved by our Seed Distribution Committee. On behalf of the Chapter, I would like to thank Les for his initiative and commend the teachers and students for embracing this project. We look forward to following up on their progress.



If you would like to learn more about how to establish a demonstration planting at your school please contact our Chapter Administrator for more information.

Jean Najjar
Email: mail@patacf.org

2018 Marking Milestone Anniversaries for our Chapter

30 Years Ago

Spring 1988 – First TACF Backcross planting in Pennsylvania at Reineman Wildlife Sanctuary. Douglas Source BC1s were planted there, 1 of which was selected and still thrives.

20 Years Ago

Summer/Fall 1998 – Dave Armstrong opens Chapter office in York, PA

October 17, 1998 – Chapter hosts TACF Annual Meeting at Longwood Gardens



Above: Students from Pohatcong Twnp School; Left: Volunteer, Tom Pugel helping student measure seedlings. the Pohatcong Township School.

2017 Small Stem Assay Trials

By Sara Fern Fitzsimmons, TACF Director of Restoration



Inoculation sites on seedlings.

Through a procedure called inoculation, most of TACFs testing for blight-resistance occurs on trees that are at least 3 years of age or older. This requires field planting, and for trees to reach a certain size before the testing can occur. A few years ago, researchers at SUNY-ESF developed a technique, called the small stem assay (SSA), which acts to test trees in the greenhouse within their first growing season. SSA was developed primarily for small populations and those which are not highly-segregating.

To ascertain whether this procedure would be appropriate for application to TACFs large and often highly segregating populations, several Chapters embarked in various experimental trials through the 2017 growing season: Maine, Mass/RI, PA/NJ, MD, VA, TN, and GA all participated. TACF also administered trials with the Regional Screening Center in Asheville, NC.

Early results show that the technique is usable, but still requires refinement. Many participants were struck by “quiescent cankers” or “no takes”. This type of canker could easily be mistaken for a highly-resistant reaction, but they happen on known susceptible individuals. For that reason, it appears as though the fungus didn’t get an opportunity to properly infect the tree. These no takes happen in the field, usually about 1% or less of the time. In the SSA, however, these types of cankers were occurring 10% or more of the time.

All labs that participated in the 2017 trials plan on trying again in 2018 to further improve the technique. The main goal this year is to identify the cause of the no-take, and reduce or eliminate its appearance from the study. The going hypothesis is that the wound made in the stem is too narrow to allow for effective colonization by the blight fungus. The wound is made with a knit picker, a tool with which those of you who crochet or knit should be familiar. Several labs intend on trailing different utensils which will create a wider wound.

At the 2017 PA/NJ trials at Penn State, we had help from multiple volunteers to inoculate almost 1300 trees. It took us almost all of 2 days to inoculate, and then another 4 days to measure, once at 8

weeks and then again at 16-weeks. We thank Mac Heebner, Joyce Long, Tony Knaus, Dave and Ruth Ann La-



Above: Mac Heebner assisting with stem assay

zor, Joni Arrington, and Bill and Bonnie Ford for helping us complete this massive task!

One of the most exciting finds of the Penn State trials are four families which tested at or above Chinese levels of blight-resistance. Two families are at the PSU Arboretum, and two are from Blair Carbaugh’s farm in Danville, PA. We will be re-testing these families, along with 35 others, to ensure the results are replicable. These families will also be tested at TACF’s new greenhouse facilities in Meadowview, VA, again to ensure replication of the results.



Right to left: Joyce Long, Dave and Ruth Ann Lazor, and Steve Hoy

Effect of spacing (competition) on chestnut blight canker length (blight-resistance)

By Sara Fern Fitzsimmons, TACF Director of Restoration

In the spring of 2014, Steve Hoy and I established a small study to look at the effects of spacing on canker size. We planted a total of 196 trees. For the primary treatments, there were 95 B3F3 and 5 Chinese seedlings across two spacing treatments of 1' x 3' and 3' x 3'. There were 12 B3F3 families, most with 5 individuals in each treatment and 1 Chinese family, only 5 individuals across the treatments. We surrounded the two treatments by a border of 96 trees.

The trees were inoculated on 6/22/2017. The resulting cankers were measured on 11/6/2017.



The cankers will be measured again this spring. For growers, the implications are that the effects of competition are significant. Dense plantings increases competition among the trees for various resources like water, light, etc. The increased competition reduces the fitness of the tree. The reduced fitness reduces the ability of the tree to fight off the fungal infection. The fungus can grow larger before the tree can fight off the infection, if at all.

Look for the results to be published in our fall newsletter 2018.

Checklist for Growers By Steve Hoy, Orchard Manager

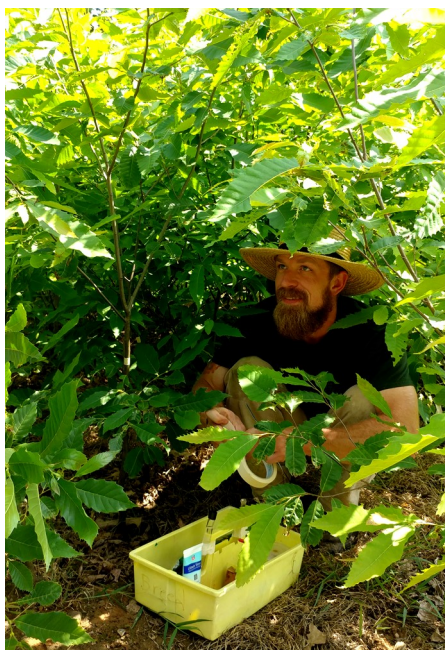
This list is geared toward growers with plantings from Spring 2017 or earlier.

Restake/Remove tree tubes – If you've recently planted your orchard odds are the winter winds have relocated at least a few of the tree shelters that are meant to be protecting your young trees. While the weather is still cool its good to get things secured before the mice, voles, and chipmunks come looking for an easy meal. If your trees are established it may be time to remove the shelters before causing deformity/injury to the tree.

Check for insect eggs/damage – While in close to the stem look for any signs of insect eggs attached to the tree. They may be beneficial ones so before destroying them take a quick photo and search the internet. The eggs present may help prevent a pest infestation later.

Check for rodent damage – Especially important on trees <2" in diameter look at the base of the tree regardless of whether or not it is in a tree shelter. Voles in particular have a talent for getting into places they don't belong including tree shelters. If you see bark that appears to be chewed upon you may need to set some bait stations up to lure the pest away from your trees. It is also helpful to keep vegetation next to the tree stem to a minimum. Fewer places to hide makes rodents more vulnerable to predators and more likely to seek a different food source.

Check & Repair Orchard Fence – From time to time a winter storm or high winds may bring down trees or branches onto your orchard fence. If not addressed this can create a highway for animals (especially deer) to enter your chestnut buffet. Take a moment to walk the perimeter, remove any debris on the fence and make arrangements for repairs if needed.



*Right: Steve Hoy, Orchard Manager, bonding with *Castanea dentata*;)*

Maintain Equipment – Before the grass has a chance to get ahead of you prepare your equipment. Whether you only use a push-mower or a farm tractor with a brush mower spring is a good time to check your equipment. Sharpen blades, replace filters, grease fittings, start the engine, etc. For some of us equipment sits idle over the winter so before you need to use it take a moment to run equipment for a while and work out the kinks. It will pay off in the long run.

Herbicide – Spring can be a good time to make pre-emergent herbicide applications to get ahead of vegetation management for the season. First, do your homework! There are hundreds of chemicals available and variations of those chemicals. Be sure to read the literature and know what you are spraying as well as what you are trying to manage. Spraying herbicide for grass on something like privet is not going to do the job, it will, however put more chemicals into the environment.

Update your Records – We can all get a bit buried during the summer with gardening, travelling, working, and what-have-you so update your records now while you have a little more time. Things will be off and growing soon!

Chapter News

Upper Dauphin Area High Joins our Restoration Effort

By Roy Mauer

The Upper Dauphin Area High School's FFA along with a newly established the High School Agriculture Enrichment Group have joined the restoration efforts of The American Chestnut Foundation (TACF). Soon after an Agriculture Enrichment Group formed at Upper Dauphin in the 2016-17, students became interested in the restoration mission of TACF.

When discussions began on improving the school land lab and woodlot, students incorporated a plan to include a restoration planting. The group joined TACF as seed members and received four 94% backcrossed chestnut seeds. The seeds were started in the school greenhouse and two survivors were planted on the school land lab near the high school. Under close watch and protective fencing they are doing well.

Upper Dauphin Area students visited the PA Chapter office of TACF last spring and toured their research orchards located at the Arboretum at Penn State. The orchard consists of 87% American chestnut trees and are evaluated for disease resistance and char-

acteristics related to the American chestnut. Upper Dauphin students continued their support of TACF by crafting decorative coat hooks, which they donated to our Chapter to sell at the PA Farm Show.



The students pictured are: Hunter Whitcomb, Chelsea Strohecker, Sam Jury, Dylan Stauffer, Ryan McGuire, Alaina Campbell. They are all Juniors, FFA members and are all part of an Upper Dauphin enrichment class.



Chapter Generosity Excels!

Many thanks to everyone who has supported our Fundly Truck Campaign. Through your generosity we have raised almost \$21,000 toward our goal. Our fundraiser continues through March and we hope to reach our fundraising goal of \$33,589. Any funds beyond the goal will be put toward maintenance and equipment for the truck.

2018 Truck Campaign

www.patacf.org/chapter-2018-truck-challenge

FALL MEMBER ACTIVITIES & OUTREACH

The Fall Member Meeting is being set aside this October as we encourage members to celebrate with our friends to the South by sending a large contingent to West Virginia for their annual Chestnut Festival.

Sunday, October 7, — 2018 WV Chestnut Festival
Join us in Rowlesburg, WV. This will be a great opportunity to get to know some of neighbors to the South. There will be speakers and **more**. Featuring speakers (1) Amy Metheny, graduate student at West Virginia University who will provide an update on her research using the “super donor” hypovirulent strains of the chestnut blight fungus; and (2) Dr. Jeff Skousen, professor and reclamation specialist at West Virginia University.





The Chestnut Newsletter

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The American Chestnut Foundation

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EVENT CALENDAR

March 16 — Chapter Board Meeting, Harrisburg, PA

April 7 — Chestnut Growers Workshop, Portland, OH

April 14 — Spring Growers Meeting, Mont Alto
Campus of Penn State, Mont Alto, PA

April 28 — Lancaster Native Plant and Wildlife Festival,
Manheim Township, PA

May 5 — Cent. PA Native Plant Festival, Boalsburg, PA

June 10 — P.A. Trappers Rendezvous will be hosting
the 2018 State Rendezvous, Port Royal, PA

July 28-29 — PCO Farm Fest, Centre Hall, PA

August 4-5 — Festival of Wood, Milford PA

August 14-16 — Ag Progress Days, PA Furnace, PA

September 8-9 — New Jersey Wild Outdoor Expo, New
Egypt, NJ

October 7 — West Virginia Chestnut Festival,
Rowlesburg, WV

October 14 — West Milford Autumn Lights Festival,
West Milford, NJ

October 27-28 — TACF Annual Meeting, Huntsville,
AL

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