

Dedicated to restoring the American



PA-TACF:

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Chestnut Tree

VOLUME 18, ISSUE 2

SEPTEMBER 2013

Fall Meeting Saturday, November 2



Michael Rains has an accomplished 45-year career with the United States Department of Agriculture, Forest Service, focusing on land stewardship. He is currently the Director of both the Northern Research Station in Newton Square, PA and the national Forest Products Laboratory

in Madison, WI. Michael will speak about forest conservation and the state of forestry and the forest industry in the US in broad terms. He will then cover a few specific topics of interest, including US Forest Service research on the American chestnut and American elm.



Kristine Averill is a plant community ecologist and PhD candidate in the Penn State Intercollege Graduate Degree Program in Ecology. Her current research focuses on the role of white-tailed deer in plant invasion. Using field data from 20 sites across the Mid-Atlantic Region and by conducting deer preference trials at the Penn State

Deer Research Center, her work shows that deer are facilitating plant invasion via two mechanisms. In her talk, Kristine will discuss the results of her research in the context of human-altered habitats and plant community re-assembly.



Dr. Bob Moreau and **Dr. Mike Haas** are researchers at USDA's Eastern Research Station in Wyndmoor, PA. Their talk will describe their research efforts aimed toward the goals set forth in the Renewable Fuel Standards released in 2008. Dr. Moreau's research focuses on utilizing the coproducts of bio-fuel production. Dr. Haas research focuses on techniques to produce and improve biodiesel.



Dr. Laura Guertin is an Associate Professor of Earth Science at Penn State Brandywine and member of Tyler Arboretum's Board of Trustees. Dr. Guertin is currently spending much of her time, when not conducting research, exploring the Arboretum during her sabbatical. She will provide an overview of what Tyler has to offer to visitors, volunteers, and

fans of local history and horticulture. Her talk will highlight some of the collections and programming that makes Tyler a unique public garden in the region. She currently maintains a blog titled "Journeys of Dr. G at Tyler Arboretum" (<http://journeysofdrgatt Tyler.wordpress.com/>).

President's Corner



PA-TACF President,
Don McCann.

As we do every year, this spring the Chapter put thousands of chestnut seeds in the ground, ever to improve resistance to the blight. Before the last snow of the season fell, the Chapter Board also planted some "seeds". These were changes intended to improve our effectiveness as a Board and overall as a Chapter of TACF.

The first "seed" planted was when a committee reviewed PA-TACF's 5-year strategic plan which covered 2008 - 2013. Our new plan, initially 2014-2018 inclusive, will become a rolling 5 year plan. It will be reviewed annually to assess our results of the current year and be extended one more year into the future.

The strategic plan has three major areas of focus: science and research, outreach, and operations. These areas of focus cover the main goals of the organization, which are then delineated into several distinct objectives with specific action plans (strategies) for carrying out those objectives. This "seed" has sprouted. And now we need to nurture it.

The second "seed" was planted this summer at our August Board meeting at Ag Progress Days, outside of State College. There we created committees to correspond to each of the 13 objectives

contained in the strategic plan. The charge to the committees is to develop the specific action plans to carry out the strategies to meet the goals. The action plans will describe what is to be done, by whom, in what time frame, and what resources-dollars and material will be required. The Budget committee will work with each of the other committees to pull together financial information related to the action plans in order to create a budget for the Chapter.

Our new seeds have germinated and are taking root! The committees are working to develop these action plans this fall so that they may be incorporated into the Strategic Plan for adoption at our next Board Meeting in January 2014.

Here's the third "seed" we hope will flourish; these committees are open. We invite all chapter members to get involved. Visit <http://www.patacf.org/a-message-from-the-pa-chapter-president/> for a link to our strategic plan, in it's current draft form. If you have an interest in the work of any of the committees please let us know. Contact Stephanie Bailey, our Chapter Administrator at syb5206@psu.edu or 814-863-7192. As we noted this process is on-going, so anytime is a good time to jump in.

Let's look forward to a great harvest!

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THANKS AGAIN!!!

Another great season of volunteering comes to an end. We sincerely thank all of the volunteers who came out to plantings, inoculations,

events, talks, classes. Thank you to all of our supporters, including NPC!

Pictured above: Dave Armstrong showing that board members like to get their hands dirty, too.

New PA Chapter website!

Have you visited our new website yet? If not, please do! Last winter we made request for funds to redesign our website and thanks to all of you, we were able to do so. Joseph Orr, of *Joseph Orr and Associates*, did the redesign for us.

Useful information for members and non-members alike. Take a look and let us know what you think...

www.patacf.org

www.josephorrandassociates.com



PA-TACF Raffle

Chances to buy tickets in person at Fall Meeting (November) and PA Farm Show (January 2014). Drawing will take place at our Spring meeting (March 2014).



Raffle Prizes:

- **First Prize:** Stihl MS180C-BE Chainsaw
- **Second Prize:** Historical American chestnut print framed in American chestnut by Chris Ditlow
- **Third Prize:** Turned American chestnut bowl by Jim Finley

More info to come! Call our office to purchase tickets by mail. 814-863-7192

Save the Dates!

October

17-18: TACF Board Meeting, Herndon, VA

18-20: TACF 30th Annual Meeting, Herndon, VA

November

2: PA-TACF Fall Meeting, Tyler Arboretum, Media, PA

January

4-11: PA Farm Show, Harrisburg, PA

March

TBD: PA-TACF Spring Growers Meeting

Attention! Venue Change...

For 12 years now we have held our Spring Growers Meeting at the Milton Hershey Environmental Center. As the meeting continues to grow and changes are being made at the school, we are now investigating new venues for the meeting in the Harrisburg/Hershey area. Stay tuned to our website and Facebook page for updates!

A huge thanks to Nathan McKelvie and the Milton Hershey school for 12 wonderful years of partnership!

Visit our calendar or call our office for more details.

Be sure to keep track of PA-TACF events by regularly visiting our calendar at www.patacf.org

Volunteer Spotlight



PA-TACF volunteer, Deb Ridgeway, pictured here with one of her American chestnuts.

Deb Ridgeway is an invaluable member of our team here at PA-TACF. Pretty much anywhere you see the work of PA-TACF, you are also seeing the hand of Deb Ridgeway at work. She is one of those volunteers you know you can count on, stepping up to the plate for any type of request, from office organization to web help to orchard work and fundraising. She does it all! We are grateful for her "can do" attitude and tireless service to a cause that she is obviously passionate about.

Deb and her husband, Michel, have shared an interest in the history of the American Chestnut for over 15 years. Michel remembered stories his father told of the chestnut tree and the blight in New England, and Deb had read personal accounts of the chestnut trees blooming in the Appalachian mountains. Deb retired from a career with Exelon Corporation (Philadelphia and Chicago), an American energy producer, trader, and distributor. After moving to central Pennsylvania in 2008, she became active in establishing the Raystown Restoration Branch with Jeff and Lori Krause, and still serves as the Branch's secretary. Deb also created and maintains the Branch and State Chapter Facebook pages. She has assisted in planting projects at PSU and organizing the Raystown Branch's annual chestnut celebrations. She also recently served as Vice President of Standing Stone's Garden Club and is a board member for the national youth fly fishing team, Team USA Youth. She contributes her skills in communication/public relations to these organizations as well as several other local organizations.

Raystown Restoration Branch Event 2013

We had a great time on April 5 at the C. Barton McCann School of Art in Huntingdon County.



We brought along restoration chestnut seedlings to distribute to Sponsor members at the event (left). PA-TACF member, Rodney Fleck, prepares to take home his new restoration chestnut (above).



Mark and Sara Banker (below), joined in for the evening that included chestnut workshops, socializing with other chestnut enthusiasts and an auction.



A Tale of Two Interns

We asked our summer interns to share some insights from their experience of working with us this summer. These guys had a long summer of hot days and lots of outside work. They seemed to have a good time and we strived to be sure they were learning what they came here to learn. You'll see that both of them came to the same conclusion about what the most valuable experiences were from the summer... and it has a lot to do with YOU (our volunteers)!

Meet Tyler Kulfan...

After completing a research paper on the chestnut blight for an ecology course at my home college (Eastern University), I became not only interested but fiercely determined to become involved in the work of TACF, namely through the summer intern program. For a chronically white-collar history major, a summer of orchard maintenance was not without its challenges, among them driving a tractor, properly operating a chainsaw, and wearing long pants in 90+ degree weather. But the work was always rewarding. Intern duties included maintenance of both the TACF greenhouse and orchard (as well as visits to neighboring orchards) and there's something deeply satisfying about helping to raise the seedlings and then seeing volunteers in the community come together to lend a hand in their planting.

Alongside the summer planting and the day-to-day orchard work, a trip to Vermont and Maine toward the end of my time with TACF stood as a sure highlight of the summer. Recently in my college experience I had picked up a major in Environmental Studies alongside my history degree, and this trip and the work it entailed (mapping, seedling counts, tree measurements, etc. at sites with wild, full-grown American Chestnuts) granted me some excellent field experience.

Continued on Page 7



Meet Aryk Strunk...

This summer was an incredible learning experience for me. I am currently enrolled in my fourth year at the Pennsylvania State University and this summer I was fortunate enough to acquire an internship with the American Chestnut Foundation. This opportunity has contributed to better time management skills as well as extensive field experience related to my major of Forestry Management. While working for the Foundation I helped with daily and other maintenance of orchards located across the Commonwealth, including but not limited to, mowing, planting, brush cutting, rating and roguing and bagging for pollination.

The true highlight of my summer was working with all of generous and highly inspirational volunteers who helped with the plantings, outreach and extension events and other maintenance activities. The amount of love and dedication the volunteers brought with them was truly unbelievable. I asked myself, "How could someone be so passionate about a simple tree?". Working alongside many of these volunteers for the summer helped me find my answer. They share the same love for the natural world as I. I found myself connecting and relating with a generation I previously thought was completely different from me. These volunteers inspired me to want to help out with our community more. The work I did for the American Chestnut Foundation over this

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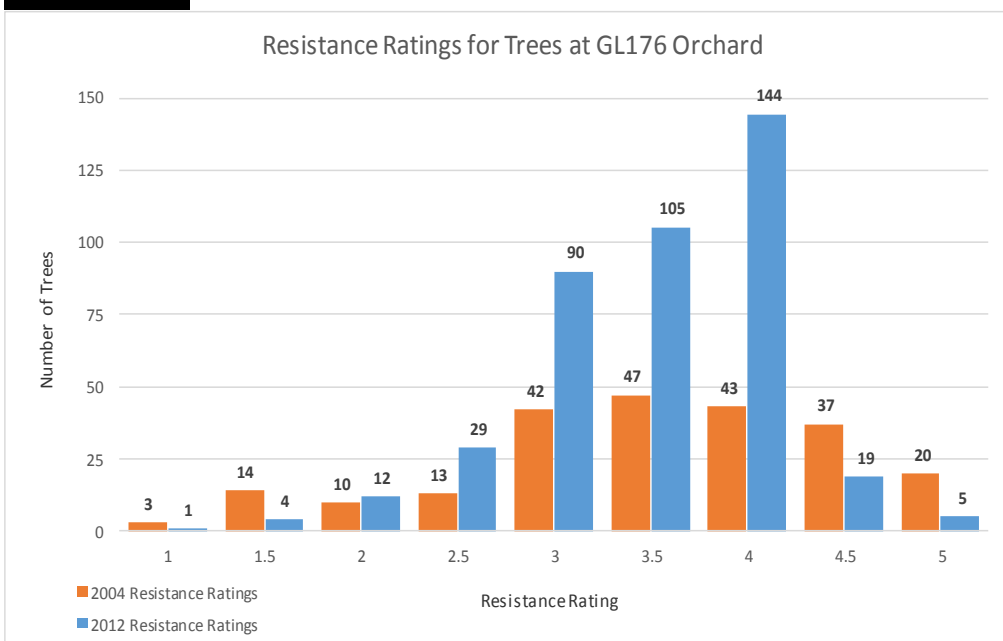
The Life and Times of the Gamelands 176 Orchard

On one of the coldest days of April 1997, PA-TACF volunteers joined Penn State University (PSU) students and faculty to plant 1600 BC₂F₂ seeds on land that once belonged to the PA Game Commission's Gamelands 176 (GL176). Located only a couple of miles from campus, this orchard solidified the partnership between PA-TACF and PSU.

By May, Dr. Henry Gerhold, professor of forestry at PSU reported that germination was taking place. Unfortunately, as the year went on, it became apparent that the site was not entirely appropriate for chestnut growth. The soils were fair for chestnut. The southern 65% of the site is covered in Hublersburg silt loam and the remaining area by the closely related Hagerstown silt loam. Both are classified as well-drained, limestone derived soils, but both only have moderate **permeability**. While drainage is important, how quickly water will move through the soil has an even bigger effect on chestnut survival. Toward the end of the first growing season, close to 50% of the originally planted nuts did not germinate or had germinated and died (Figure 3), most of them concentrated in the center of the planting where a swale was present. Although only half of the trees survived the first year, those that made it grew relatively well despite the high pH of the limestone soil.

In 2004, seven years after the planting, I gave qualitative resistance ratings to the trees in the orchard, rating the ability of the trees to resist natural chestnut blight infection. Only 45% of the trees still remaining in 2004 were infected with chestnut blight, and I only gave ratings to those trees with infections. The results may be found below in Figure 1. In these ratings, 1-2 represents high blight resistance, 2.5—3.5 represents moderate chestnut blight resistance, and 4-5 represents high susceptibility to chestnut blight.

This spring, now that the orchard had grown for 15 seasons, it was time to re-evaluate the trees for natural blight infection (Figure 2). This time, virtually all trees were infected. As you can see in Figure 1, the incidence of blight is extreme, but there are several highly resistant individuals.

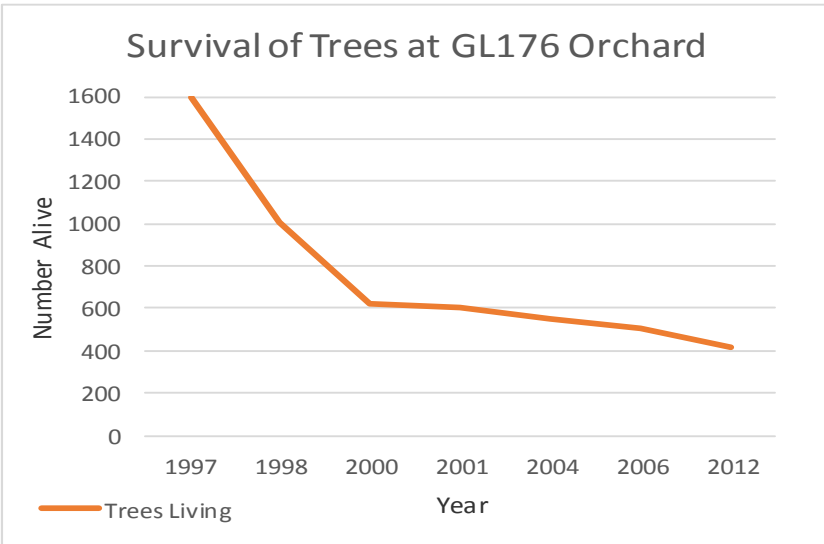


The biggest lesson from this planting is that proper site selection is critical. Further analysis of resistance ratings needs to be completed, but that there continue to be several highly blight-resistant individuals on this less-than-ideal site suggests that back-cross breeding holds promise for the eventual restoration of the American chestnut.

Figure 1. Resistance ratings of natural infection on trees at the Gamelands 176 orchard.

Figure 2. (right) PSU Forestry Student, Jeffrey Osbourne, help take survival, diameter, and resistance rating measurements at the Gaemlands 176 orchard.

Figure 3. (below) Survival of B2F2 trees planted at Gaemlands 176 orchard near University Park, PA. Excessive mortality in the first two years is most likely due to the low permeability of soils found on the site.



PA-TACF Member photo



PA-TACF Member Alice Mioduski with one of her 29 American chestnuts. Alice keep us up to date on the progress of her trees.

(Meet Tyler Kulfan, continued from Page 5)

Retrospectively, it was interacting with volunteers and working to raise awareness of the work of TACF that was the most rewarding. The experiences in science and forestry that my summer internship offered were likewise personally enriching and I would certainly consider futures in any of these fields—but my positive experiences with public relations have made me keenly interested in a future career (perhaps working at a national park, or for a non-profit) that allows me to share my own interest and investment in ecology with the general public.

(Meet Aryk Strunk, continued from page 5)

summer made me feel as if I was doing something positive for the environment, during a time when we mostly hear about the negative impacts of our actions on the environment. I am pleased to know that I can continue with this amazing organization throughout this fall semester while pursuing a career in the field of conservation.

Pennsylvania Chapter
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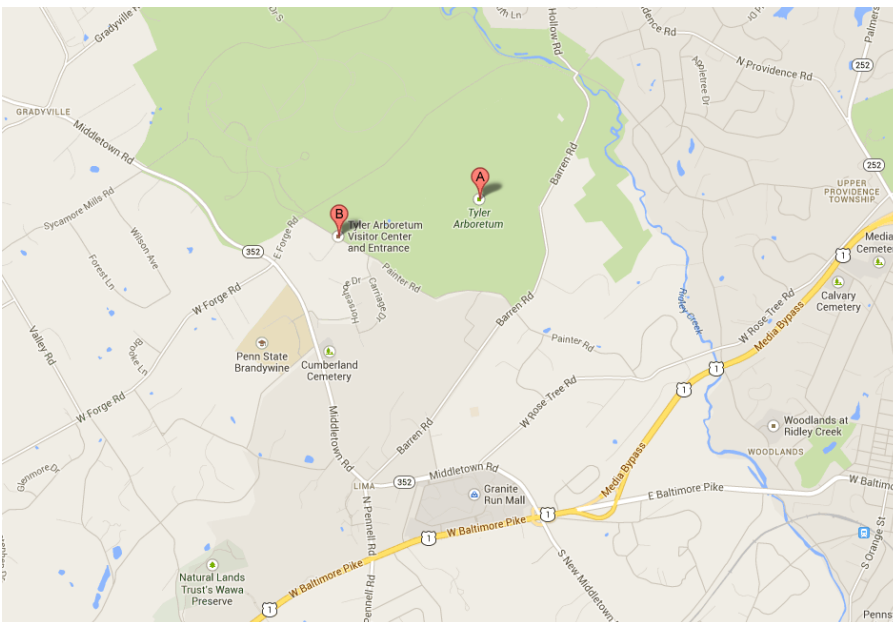
The Chestnut Tree Newsletter

Fall Meeting Details and Directions:

PA-TACF Fall Meeting
Date: November 2, 2013
Location: Tyler Arboretum, Sequoia Room in Barn, Media, PA
Time: 9 a.m. to 2 p.m. with optional tours following meeting

Tyler Arboretum is accessible from several major highways and is about 30 minutes outside Philadelphia, PA.

Tyler Arboretum address:
515 Painter Road
Media, PA 19063
Phone: 610-566-9134
Fax: 610-891-1490
Email: info@tylerarboretum.org



Please visit :
<http://www.tylerarboretum.org/visit/directions-hours-admission/>
For directions from your area.

If you do not have computer access or need assistance, please contact me and I will get you directions. Stephanie, 814-863-7192 or syb5206@psu.edu