



Dedicated to restoring the American

Chestnut Tree

VOLUME 27, ISSUE 11

SEPTEMBER 2022

PA/NJ CHAPTER FALL MEMBER MEETING

Saturday, November 12th

8:30 AM—2:30 PM

Lord Stirling Park

Environmental Education Center

Basking Ridge, New Jersey

Purchase your ticket online:

patacf.org/2022-fall-chapter-meeting/

Or

RSVP by Thursday, November 10th

mail@patacf.org | (814)863-7192

and pay at the door

Speakers and Presentations



Tom Molnar --
Associate
Professor at
Rutgers
University SEBS-
Plant Biology

Rutgers University Hazelnut Breeding Program: Exciting Progress and New Cultivars for the Mid-Atlantic Region

Presentation: Tom Molnar will give an update on the Rutgers University hazelnut breeding program, which after more than 20 years of effort recently released its first disease-resistant cultivars for growers in the Mid-Atlantic region. He will also discuss progress in breeding more cold-hardy hybrid hazelnuts with high-quality kernel traits for more northern regions.



Jessica Ray —
Staff Scientist
Center for
Environmental
Studies, at
Raritan Valley
Community
College

White-tailed Deer Population Impacts on Northern NJ Forests

Presentation: Jessica will focus on the changes in Northern NJ forest understories from deer, invasive species, and historic land use. She will discuss various methodologies for estimating deer population numbers, effective methods to reduce deer populations, and prioritizing areas for management.



Mike Van Clef,
Stewardship
Director, Strike
Team Program
Director
for Friends of
Hopewell Valley
Open Space.

Impacts of Invasives on the Ecosystem

Presentation: Mike Van Clef of the NJ Invasive Species Strike Team is known for his work in eradicating invasive species for the protection and conservation of rare species, including plants and wildlife. This talk will include a discussion of the problems that invasives cause in the ecosystem and their impacts on natural areas. Identification and control of invasive species will be discussed.

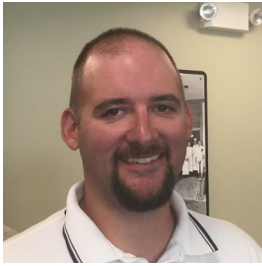


Sara Fitzsimmons — Chief Conservation Officer, North Central Regional Science Coordinator, The American Chestnut Foundation (TACF)

Deregulation and Rollout of Darling 58

Presentation Description: The USDA, EPA, and FDA are all working to evaluate the safety of the release of the transgenic American chestnut event developed at SUNY-ESF referred to as Darling 58 or D58. How will SUNY-ESF and TACF be working together to provide these materials to members and the public if and when deregulation is announced? Sara will cover what is currently known about that process, as well as what has yet to be worked out in the months ahead of an expected 2023 deregulation announcement.

More meeting information on page 7



President's Corner

Greetings,

As the tree enthusiast takes a seat to read this newsletter, I imagine you are familiar with the adage: "A society grows great when old men plant trees whose shade they know they shall never sit in". As a grower, a more modern slogan may be appropriate: Thinking "...after next week things will slow down, over, and over

again". Or how about, "the days are long, but the years are short". And now you may be thinking, where is he going with this?

In the blink of an eye, some of my first plantings are 20 years old and are throwing nice shade. Our chapter has now been engaged in planting trees for over 30 years, with some really nice specimens to show. One of the activities we supported this year with the help of your donations was hiring Dylan Longale as an outreach intern. His travels, highlighted on the opposite page, focused on reaching out to long time growers. Making that personal connection and evaluating plantings which may not have been evaluated in years. Meeting growers who may be second generation now or learning about the history of orchards was certainly worth the mileage. While the years may fly by, it is exciting that the work and outreach we do as a chapter has such a positive effect. I will take this opportunity as well to put in a plug for a chapter historian. We recently digitized old photos and meeting records, and are looking for an interested person that would be interested in organizing and putting names to faces. If you can help with this please call our office and talk to Jean Najjar—814-863-7192.

In today's fast pace and busy world, I would like to thank our volunteers. Your time is appreciated, whether you assist in planting, greenhouse work, speaking engagements, tree id missions, etc. We also have a few new faces on the ballot this year for board of directors and new volunteers for the speaking bureau. We are always looking for folks with new ideas to join our mission! I look forward to meeting folks at our Fall Member Meeting in New Jersey later this fall. It is lining up to be a great program with an opportunity to visit an orchard on site. In the meantime, I wish each and every one the best of luck beating the squirrels to the prized chestnuts this fall!

-Rick Hartlieb
President
PA/NJ Chapter of TACF

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Chapter Administrator
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jmn173@psu.edu
(814)863-7192

Get an
early start
on your
holiday
shopping!



CHAPTER STORE — ONLINE

<https://pa-nj-tacf-store.square.site/>

A special edition long-sleeve red shirt is being printed in honor of our Fall Meeting in New Jersey (home of Rutgers University). We can't sell merchandise at the meeting so be sure to order yours in advance.

PA/NJ Chapter Outreach Intern Report — Dylan Longale

The PA/NJ Chapter hired Dylan Longale as our Outreach and Data Management intern in May of 2022 thanks to the generous support of our members who contributed almost \$15,000 between 2021-2022 to support this position and associated travel.

As the title indicates, Dylan's internship was split between updating records in Dentabase — our database of American chestnuts, and Chapter outreach. The outreach portion focused on reaching out to growers, assessing site conditions, and finding the best trees to continue our work. This outreach represents a huge undertaking, as we have over 15,000 hybrid and wild-type American chestnut trees growing in over 100 orchards, restoration projects, and woodland locations.

Over the course of his internship, Dylan traveled over 3,400 miles, meeting with members and growers. His energy, enthusiasm, and fresh perspective have been invaluable as we begin the work of preparing our community for the rollout of the Darling 58 and other 3BUR initiatives.



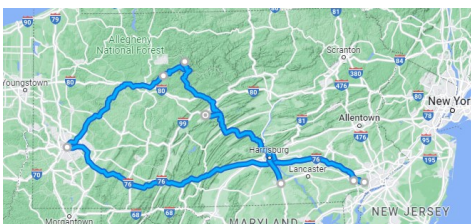
Dylan and George Perry



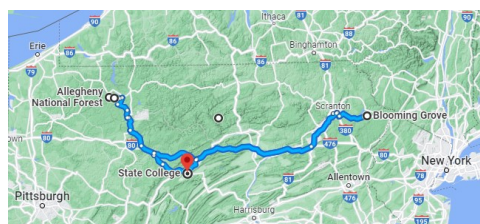
Peter Pinchot, Peter's daughter Leila and Dylan

Starting with a visit with our oldest living member, George Perry (George turned 100 in May) in York County, and ending with a visit to an orchard established by the Heritage Conservancy near Allentown, Dylan traversed the State interviewing growers and assessing orchard conditions. He shared his travels on social media through monthly reports in our e-Newsletter. We've compiled these reports on our website. To read his posts and see his photos, visit our website here:

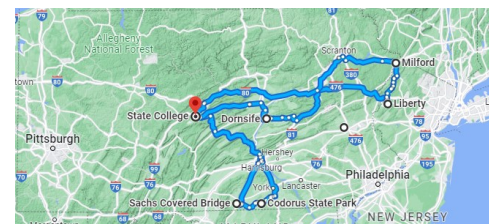
<https://patacf.org/outreach-and-data-management-intern-report-2022/>



May Outreach Map



June Outreach Map



July Outreach Map



PA/NJ Chapter Orchard Intern at Penn State

The Chapter was fortunate to have John Buckley, a Senior at Penn State studying Forest Ecosystem Management taking on the Orchard Internship at Penn State this past summer. A non-traditional student, having served in the navy, studied paramedics and firefighting, and spending 6 years working on organic produce farms before returning to school to study forestry, John was an major asset to our restoration mission and indispensable assistant to Orchard Manager, Stephen Hoy. Asked about his experience, John says, "I enjoy working in a space where agriculture and research coexist. As someone who plans to work in Forestry, working to help TACF re-establish the American chestnut to its native range has proven to be an invaluable experience".

Darling 58 Rollout — By Sara Fitzsimmons

I have been with TACF for 20 years and the most frequently asked question I have been asked during my tenure is “When can I get a blight-resistant American chestnut tree?” Currently, that answer now depends on the timeline for deregulation by the USDA, EPA, and FDA, and there are no definitive timelines. At best guess, scientists at **ESF and TACF are planning on a 2023 rollout, but that is not guaranteed**. D58 may not be deregulated until 2024. It is possible, though unlikely, that it may not get deregulated at all. With current understanding of the regulatory framework, however, we are anticipating distribution of D58 germplasm in 2023.

What is Darling 58?

Darling 58 (D58) is the name of a transgenic American chestnut clone developed by Dr. Bill Powell and his colleagues at SUNY-ESF. The name “Darling” comes from long-time supporter, previous NY-TACF President, and previous TACF Board President, Herb Darling and his wife, Jane. The number 58 refers to the number of “events” that were created with a given transgene and its promoter. Other Darling events exist but were deemed to be inadequate in either resistance or other qualities to pursue deregulation.

The transgene used in D58 is called OxO. That gene, derived from wheat, creates oxalic oxidase which works to neutralize oxalic acid which is created by the chestnut blight fungus. It’s important to note that OxO does not kill the fungus, and as such there will be cankers on D58 trees. To date, these cankers have a blocky form, somewhat similar in appearance to the resistance mechanism of Chinese chestnuts, but readily distinguishable by sight (Figure 1).



Figure 1. Blocky canker form typical of the OxO method of blight-tolerance. This particular canker is a more extreme example, and some individuals have better tolerance than what is seen in this canker. This picture is provided as an easy way to observe the “blocky” form of these cankers.

How Disease-Tolerant is D58?

Within TACF, the term blight-resistance has been used more than any term other than possibly “American chestnut”. When dealing with D58, new terminology needs to be applied, and that’s “blight tolerance”. Blight-resistance is an all-encompassing term referring to any mechanism of disease-resistance. Blight-tolerance is specific to the type of resistance mechanism enacted by the OxO gene. How disease-tolerant, then, is D58? We don’t yet know and can’t yet put a specific quantifiable amount on the disease-tolerance, but studies show the tolerance is very good. As mentioned above, D58 trees will and do get blight cankers, and have survived several years with infection. How good that tolerance is continues to be studied by ESF, TACF, and their many partners.

Long story-short: The tolerance is much better than the complete susceptibility of the current wild-type population of American chestnuts, appears equal or better than most of TACF backcross population, and may be as good as the resistance afforded by Chinese chestnuts. The tolerance is certainly “good enough” for deployment into the landscape once the D58 event enjoys deregulated status.

Who Will Receive D58 materials?

Members and supports of SUNY-ESF and The American Chestnut Foundation will always be the first to receive the most advanced germplasm available to both organizations. Amounts of germplasm distributed will depend on inventory and overall demand. Supply will increase as years go by and to that end, regionalized seed orchards of D58 have already been established under permit in anticipation of deregulation. Until those seed orchards start producing, we will rely upon controlled pollination for creation of D58 seeds and seedlings (see [March 2021 issue](#)

Continued on page 5

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[of The Chestnut Tree](#) for more information on controlled pollination).

Priority for distribution of seeds and seedlings will be given to those who have been with the organization the longest. Priority for distribution of pollen will be made to those who have flowering trees and experience performing controlled pollinations. TACF will give higher priority for pollen distribution to those with flowering Americans and advanced backcross trees, especially B3F3s. Other metrics for determining priority for germplasm distribution will be defined over the next several months with a goal for formal publication in spring of 2023.

What Type of Material Will Be Distributed?

There will be several types of germplasm that will be made available to members and supporters upon deregulation of D58. No D58 germplasm may be distributed before that time outside of research purposes within ESF and TACF.

Seedlings: Everyone wants seedlings, but these will be the least plentiful and hardest to come by and provide to members in the short-term. In the long-term – say in the next 5-10 years – that will change.

Seeds: Seeds are easier to produce and distribute than seedlings. They are more easily and cheaply shipped than seedlings. After pollen, seeds will be the next most readily available source for members and supporters of ESF and TACF to have access to D58, blight-tolerant germplasm. Even then, the numbers distributed to each individual member and supporter in the short-term will be few.

Scion Wood for Grafting: Scion wood will be the second-most readily accessible form of transgenic germplasm but arguably the hardest to use. Those with readily available rootstock and an interest/experience in grafting will have access to scion wood.

Pollen: Pollen will be the most readily

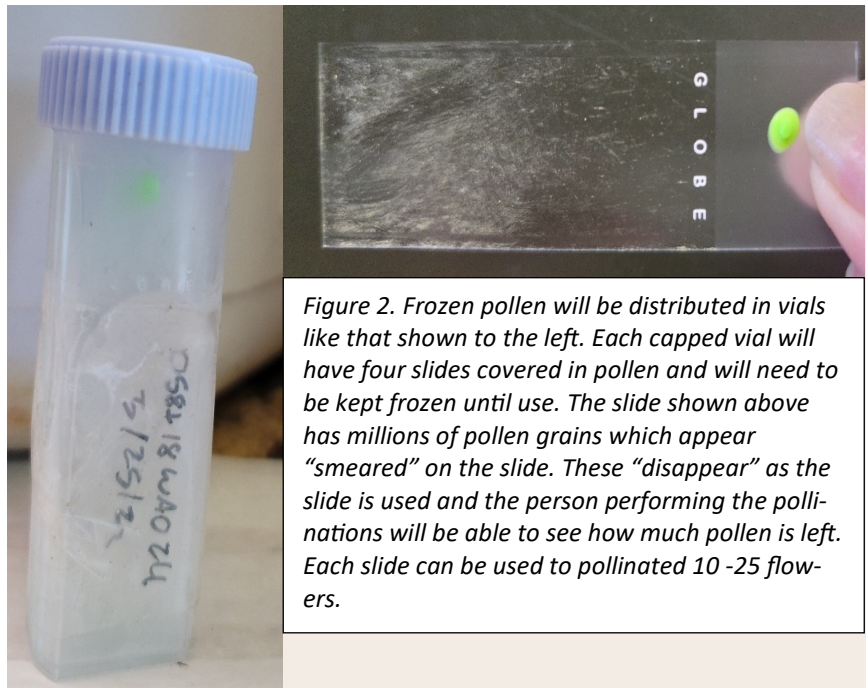


Figure 2. Frozen pollen will be distributed in vials like that shown to the left. Each capped vial will have four slides covered in pollen and will need to be kept frozen until use. The slide shown above has millions of pollen grains which appear “smeared” on the slide. These “disappear” as the slide is used and the person performing the pollinations will be able to see how much pollen is left. Each slide can be used to pollinate 10 -25 flowers.

accessible form of transgenic germplasm available and will allow those with flowering trees to make their own D58 derived seeds. Pollen will be sent in frozen form, captured on slides (Figure 2). Pollination kits which include at least 1 vial of pollen (enough to pollinate at least 100 flowers), isolation bags, twist ties, and instructions will be made available for purchase by those who have flowering trees to pollinate. The timeline and process for purchase will be determined by spring 2023.

As ESF and TACF learn more, and also determine more about rollout of D58 germplasm, that information will be made available to members and supporters. Until then, brush up on your grafting and pollination techniques, and get excited to plant the next round of improved, blight-tolerant American chestnuts!



Join or renew your membership today!

<https://support.acf.org/membership>

Chapter News

Bob Summersgill and the merging of New Jersey into the PA Chapter — By Clark Beebe

How did we become the PA/NJ Chapter of The American Chestnut Foundation? Clark Beebe, a longtime member who served as President of the Board and was the NJ representative on our Board for several years took a deep dive into our Chapter history and this is what he learned.

The question has a simple answer: Bob Summersgill. Bob is a former president of the PA-TACF with a farm in Southwest PA. But a decade ago he also had a house in New Jersey where he lived. Current board member, Ron Farr describes Bob this way, “he is a true gentleman, a great man, and dedicated to The American Chestnut Foundation.”

Bob was the ultimate chestnut salesman! His beloved dog and trusted travel companion was named Chestnut. He instilled enthusiasm about chestnut restoration, wherever he went.

He worked with chestnut enthusiasts in Maryland and helped create and organize the Maryland chapter of TACF, and then he tried to repeat the process of creating a new chapter in NJ. Whenever someone from NJ reached out to TACF, Bob responded! He went in person to meet people. He organized bucket trucks for pollination and harvest of any survivors found. He worked with Ron Farr who was the resident forester for the Wanaque Reservoir and recruited Mervyn Haines to care for the Schooley’s Mountain orchard. He also recruited Tony Rosati to care for the orchard in Jackson, New Jersey at the NJ State Nursery.

NJ had about one hundred members in the early 2000s and Bob thought it was enough to sustain a chapter. He sent post cards to all TACF members with NJ addresses inviting them to a presentation in Morristown with a full program of speakers and presentations. He felt that one hundred members could sustain a chapter, not to



From left: John Kressbach, Bob Summersgill, Bob’s dog Chestnut, and Mervyn Haines at the Schooley’s Mountain Orchard in 2009.



Bob Summersgill on one knee in front with Bob Leffel behind him. Mary Leffel is in the back row with Tom Pugel and Terry Patchel and several others dedicated volunteers.

mention a lot of residents with deep pockets and a good system of well-established non-profit organizations and philanthropic groups.

But there were also hurdles that could not be overcome by Bob and the NJ members. Rutgers, the State University of NJ, had discontinued their forestry program and did not seem to be able to support a chapter. A candidate could not be found to take on the role of President. And collaborations with other non-profits and philanthropic groups did not happen to a sufficient extent

So, after several years, the hope for a separate NJ Chapter was abandoned. Bob turned his attention to forming a collaboration with one of its neighbors – both the NY and PA Chapters were considered. Both Chapters had strong affiliations with well-established forestry schools, but the PA Chapter had more members and more structure including clerical help than the NY Chapter. And with Bob being a former president of the PA Chapter and having a farm in PA, the decision was easy.

Bob advocated for a NJ representative on the board of the PA-TACF. Ron Farr was the first NJ board member. Though some still hoped to form a separate New Jersey Chapter, it never happened. Today, we are the PA/NJ Chapter with 102 Jersey members, about one-eighth of the Chapter membership.

Though Bob never attained an independent NJ Chapter, he played a key role in New Jersey’s engagement in TACF’s restoration mission. Every key player in TACF from NJ had a connection to Bob. He is and was an inspiration! And his efforts were not in vain. He established orchards and recruited people for their care. He truly was and is Mr. Chestnut!

Chapter News

Wild American Update — Lake Graboski, Chair of Wild American Conservation Committee

The PA/NJ Chapter has increased efforts to find surviving American chestnuts in Pennsylvania and New Jersey to increase the diversity of our germplasm conservation orchards. Lake Graboski, Chair of the Wild American Conservation Committee has begun establishing targeted missions to focus the search on areas of low reporting.

Mission #2 identifies three areas in Southeastern New Jersey that we would like to explore. It is suspected that there may be chestnuts in the these three areas identified based on historic chestnut range maps and habitat, however there are few records of surviving American chestnuts in this area.

- Forked River Headwaters
- River Bluffs of the Delaware Bay
- NJ Pine Barrens in 3 parts

Due to the variety of habitats here and scientific study results, chestnuts found in this area are suspected to have a greater diversity of genetic material. If present, they would be a valuable addition to the conservation program. This is a great opportunity for individual hikers and conservation groups to help forward the restoration

mission of the American Chestnut Foundation.

We are actively seeking individuals who are familiar with the New Jersey outdoors to help lead conservation efforts in New Jersey. Please contact us if interested at mail@patacf.org.

TWO WAYS TO REPORT A TREE

● **Tree Locator Form:** Download the form from our Chapter website (www.patacf.org) or request a printed form from the office (814-863-7192).



● **TreeSnap.org:** Use your smartphone to report a tree via the TreeSnap.org app. Note: We still require a leaf and twig sample for trees reported electronically.



Remember, whether you use a paper form or the smartphone app, we need for you to submit a leaf and twig sample for each reported tree (if at all possible).

To Review all current missions and learn more about wild American conservation visit our website

<https://patacf.org/report-a-tree/>

Meeting details continued from page 1.

Lord Stirling Park Chestnut Orchard Tour

Saturday, November 12th (2:15 pm to 3:30 pm)

Join Daniel Ross (Environmental Stewardship Coordinator), Randy Santoro (Volunteer), and Sara Fitzsimmons for a tour of the Lord Stirling Park Chestnut Orchard after our Fall meeting.

The original planting was organized by Jane Parks (since retired) of the Lord Stirling Environmental Education Center. Three hundred trees were planted in 2014 with the help of Sara Fitzsimmons, Clark Beebe, and a couple of dozen volunteers from Goldman Sachs. The orchard was planted as a “progeny test” of mostly B3F3 trees from Meadowview to

determine their resistance. In addition to volunteers, Goldman Sachs also contributed a few thousand dollars in funding for fencing and supplies.



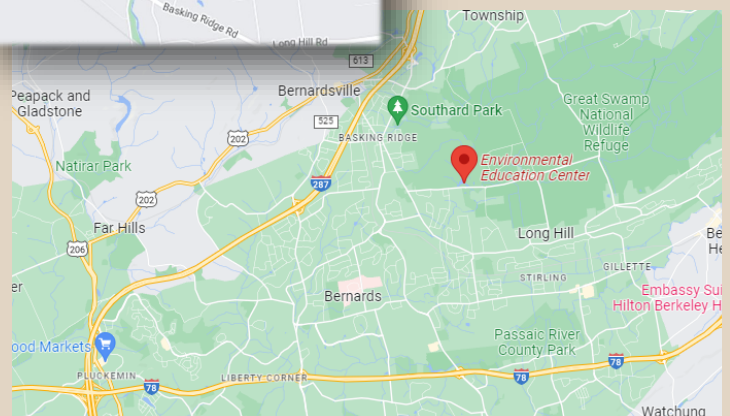
Volunteers at the 2014 planting.

How to get there:



Lord Stirling Park Environmental Education Center
190 Lord Stirling Rd,
Basking Ridge, NJ

40.69540078605445,
-74.52112816473091





Pennsylvania State University

108 Business Services Building
206 Forest Resources Lab
University Park, PA 16802
mail@patacf.org
Phone: 814-863-7192

RETURN SERVICE REQUESTED

OUTREACH DATES

Chestnut Restoration Presentation_ Fitzsimmons

October 20, 2022 | 7:30 – 8:30pm
Summit, New Jersey

PA/NJ Chapter Fall Growers Meeting

November 12, 2022 | 8:3 AM — 3:30 PM
Basking Ridge, New Jersey

2023 PA Farm Show

January 7-14, 2023 | 9:00 am—9:00 pm
Harrisburg, Pennsylvania

Mid-Atlantic Fruit and Vegetable Convention

January 30—February 2, 2023
Hershey, Pennsylvania

2023 Forest Landowners Conference

March 24-25, 2023
State College, PA

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Check our website for updates and more information:

www.panjtacf.org



The PA/NJ Chapter of TACF is grateful for the continued support of NPC and their pro bono printing of this newsletter. NPC has freely printed every issue of The Chestnut Tree.