

Maryland Chapter

The American Chestnut
Foundation

NEWSLETTER
SEPTEMBER 2020

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Editor: Dave Gill



The President's Message

An Unusual Year

The Covid-19 pandemic has turned 2020 into what I hope is a unique experience. So far over 100,000 Marylanders have tested positive and it has cost the lives of over 3,700 in our state. It has impacted all of us in some way, some much more than others.

The pandemic has forced curtailment of many Chapter activities. Our spring meeting was cancelled. Large orchard work parties have had to be eliminated, which has hampered orchard maintenance and eliminated almost all spring pollinations. Still we have been busy and there is a lot to tell you about.

First, mark your calendars. We are holding a Fall meeting, **via Zoom**. The meeting will be **October 7 at 7 PM**. Our featured speaker will be Tom Saielli, the Regional Science Coordinator for the Mid-Atlantic and Southern Regions. More about that later in the newsletter.

The petition to allow restoration planting of the transgenic [Darling 58 American chestnut tree](#) with enhanced blight tolerance has been to the USDA's office of Animal and Plant Health Inspection Service (USDA-APHIS). It is now available for public comment. Your comments are encouraged.

Chapter Fall
Meeting

October 7th

7:00 PM

Online via ZOOM

In early February, the Chapter planted over 2,000 seeds in the Baltimore County Agriculture Center greenhouse. And somehow a large number of these were tested for blight resistance later in the summer. Read about that work later in the newsletter.

Our collaboration with the Bethesda-Chevy Chase Izaak Walton League has deepened. We now have several hundred seedlings growing at their Poolesville facility in an open-air greenhouse.

This is the time for election of the Chapter's officers. The election will be conducted online. Members will receive an email from Survey Monkey by mid-September. Also, for those unable to use the link, a ballot is provided here in the newsletter.

So kick off your shoes, get out your reading glasses, sit back and enjoy reading about your chapter.

Larry Grossman



ACTION ALERT

Please Voice Your Support to the USDA for Saving the American Chestnut Tree!

By: Larry Grossman



The American Chestnut Foundation (TACF) and the State University of New York College of Environmental Science and Forestry (ESF) have been leading an unprecedented mission to restore the American chestnut tree to its native range. Researchers at ESF have developed [Darling 58, a transgenic American chestnut tree](#) with enhanced blight tolerance and have submitted a petition to the USDA's office of Animal and Plant Health Inspection Service (USDA-APHIS) to clear the way for restoration planting programs.

The public comment period, an important step in the USDA-APHIS review, is now open through **October 19, 2020**. Please submit a comment to help demonstrate your support for the Darling 58 breeding plan. If approved by USDA-APHIS, the EPA and FDA, the Darling 58 can be planted for general use in restoration programs. Since its inception the Maryland Chapter has been engaged in a hybridization program to increase blight resistance by adding Chinese chestnut genes. We are continuing that work and refer to it as the traditional breeding program. The newer Darling 58 approach bypasses the Chinese genes but adds one additional gene taken from wheat. Neither approach guarantees success. It is important to explore both.

The American chestnut was once one of the dominant trees in most of the forests of Maryland. The Maryland Chapter's goal is to restore the American chestnut to its former range in the state. The transgenic tree could turn out to be a key tool for success.

Visit TACF's [Public Comment Period webpage \(https://www.acf.org/science-strategies/biotechnology/documents-for-public-comment-period/\)](https://www.acf.org/science-strategies/biotechnology/documents-for-public-comment-period/) to review helpful resources prior to submitting your comment

or [click here \(https://www.federalregister.gov/documents/2020/08/19/2020-18135/state-university-of-new-york-college-of-environmental-science-and-forestry-petition-for\)](https://www.federalregister.gov/documents/2020/08/19/2020-18135/state-university-of-new-york-college-of-environmental-science-and-forestry-petition-for) to submit your comment on the Federal Register's website.



MDTACF Small Stem Assay Pilot Program in its Second Year

By Bruce Levine

The Maryland Chapter is in the second year of its pilot program using small-stem assays on potted seedlings to prescreen trees for blight resistance before putting them in our seed orchards. The process not only lets us identify the most resistant seedlings prior to planting, but also helps us decide which family lines to put in the seed orchard. By comparing the performance of seedlings from different families, we can see which parent trees are passing the highest levels of resistance to their offspring. MDTACF is extremely grateful for the cooperation and support of the Baltimore County Agricultural Center which has allowed us to use its greenhouse and garden for the small stem assays, and of the Bethesda-Chevy Chase chapter of the Izaak Walton League which is hosting our spare potted seedlings.

In 2019, we screened 11 families from two orchards, from which we chose three families for planting in our seed orchards. In 2020 we are screening seeds from 21 families from four orchards, of which 16 have not been previously screened. Chinese, F1 (50-50 Chinese-American crosses) and American controls will help us rank the relative performance of these families. As of this writing (late August), about 25% of the seedlings have succumbed to their inoculations. We have seen no losses yet among resistant Chinese controls, a moderate number of losses in F1 controls, and the highest losses among our American controls. The hybrid families are so far performing slightly better or worse than F1 controls. All of this is as expected, but we will not have enough data to make selection choices until October. Since harvest comes a few weeks before then, we will have to harvest from all possible candidate trees, and decide later which to plant for small stem assays in 2021.



Covid-19 threatened to derail the project this year, because we could not perform the kind of labor-intensive inoculations and sorting that we did in 2019. However, we were able to modify our approach, mainly by using a new slurry-type inoculum that allowed us to do the work faster, with fewer people. The inoculum seems so far to perform as well what we used in 2019, but we will not know for sure until the end of the season.

By November, we expect that we will have a much clearer idea of which the best parent trees are. We will also have 100-200 pre-screened seedlings from those parents to put in our seed orchards this fall. The seedlings at the Bethesda Chevy Chase Izaak Walton League have not been inoculated, but those that come from the best families that will be overwintered and inoculated in spring 2021 to boost the number of seedlings available for the seed orchards next year. There are also a few more families we have not screened yet because we did not have enough seeds from the mother trees, so we hope to get to those in 2021.

When will the pilot end? It's hard to say. But we are already making discoveries that will likely improve the quality of the mother trees in our seed orchards. Each year we learn something new, and move closer to our goal of breeding highly-blight tolerant American chestnuts derived from surviving trees in Maryland.



Everything you wanted to know about Trees, Plants, Insects

By Dave Gill

If you are reading this newsletter the odds are that your interest in nature goes beyond just the American Chestnut tree. The University of Maryland Extension office provides an informative on-line newsletter on a weekly basis that covers a wide range of topics about local pest and plant diseases affecting the Maryland area. The newsletter is called the **Landscape and Nursery Integrated Pest Management Report**.



The IPM newsletter was started in 1996 as fax messages sent out to arborist. Stanton Gill Extension Specialist, started it after asking the Arborist industry how the University could best benefit them. They suggested setting up a network within the industry to get out reports about current insects and disease issues. The arborist then only used fax machines at the start. A switch to emails was made in 2000 and a WEB access was accomplished by setting up the IPMnet webpage in 2003. The newsletter has gained a wide audience and now goes out to 10 states now over 4004 commercial horticulture companies receive it each Friday. It is extremely popular and the University get lots of feedback for other states that use the newsletter information. The target audience is arborist, landscapers, nurseries, garden centers, city foresters, state agencies involved with commercial horticulture, arboretums and garden centers.

When you have a moment, take a look at the newsletter. Several of the Chapters members read it on a weekly basis and find the alerts of great benefit in managing our orchards. You can access it at: <https://extension.umd.edu/ipm/landscape-and-nursery-ipm-alerts>.



Seeing the Forest through the Trees

By Ron Kuipers

WHO MOWS THE ORCHARDS?

Keeping our orchards mowed is a big part of day-to-day orchard maintenance.

We rely on three kinds of arrangements:

Owner Operated - Under this system the landowners hire a contractor or use their own equipment to take care of the mowing. Examples are the WSSC seed orchard at Triadelphia; the State Highway Administration orchard at Hampstead; the three Izaak Walton orchards near Poolesville, Rockville and Damascus; and the privately-owned Fox Haven and Dickey orchards.

Friendly Neighbor Operated - These orchards have great neighbors who use their own equipment to mow our chapter's orchards. The neighbors are the Horst family, who mow Monocacy, Mark Grzeszkiewicz, mowing WSSC 1 and 2; Remus and Howard Lyles, mowing Lyles although WSSC has mostly taken over; Dean Yap, mowing Peapatch Lane; and Bill Head, mowing WSSC 2.

Chapter Operated - In these cases chapter volunteers operate a mower that was purchased by the chapter and is stored in or near an orchard. The examples are Perry Cregan at BARC; Dave Gill & David Sann at CMREC; and Darryl Johnson and Tom Vegella at Ft Detrick.

There is currently a fourth category, which we hope is temporary. This is the Southern Maryland orchard near Waldorf on Charles County Soil Conservation District property. For now, we are paying a landscaper to mow four times per year.



Work party consisting of Geary Schwemmer, Larry Grossman, Cindy Stevens and Stan Fisher clearing dead trees at the Black Hills Regional Park orchard. Bruce Levine and his son Leo had departed already. Ron Kuipers was behind the camera. Note the masks, spacing, and the brush pile, the product of their labor.

VOLUNTEER OPPORTUNITIES IN THE ORCHARDS

Fall means harvesting, and we will be looking for pickers soon. We hand-pollinated only a few trees at Black Hill, IWL-Rockville and at Gary Carver's place this year. Unfortunately, the two IWL-R trees died before the bagged burs developed. We will be making important collections of open pollinated nuts at the IWL-Damascus, Black Hill and Monocacy orchards. This will begin at the end of September.

Culling of dead trees and selected least resistant trees continued over the summer, mainly at Ft Detrick and Black Hill. With the arrival of cooler weather, I'm hoping we can do a lot more, mainly at BARC, Ft Detrick, Black Hill and Hampstead. The afflicted trees at Ft Detrick and Hampstead were mainly damaged by chestnut blight. At Black Hill the blight damage was greatly compounded by gall wasps and at BARC by Phytophthora.

Stand by for work party notices. **To volunteer or to obtain more information concerning orchard maintenance activities please contact Ron Kuipers at m_rkuipers@yahoo.com or subscribe to our [Orchard Volunteers Google Group](#).** Note that Covid-19 concerns restrict work group sizes.



What Makes a Greenhouse? The BCC Izaak Walton Collaboration

By Larry Grossman

Good luck is often knowing when to take advantage of an opportunity. Our chapter definitely made the most of an opportunity that presented itself this spring. The Bethesda-Chevy Chase Chapter of the Izaak Walton League (BCC IWL) has a large property in Poolesville. The Izaak Walton League is one of America's oldest and most successful conservation organizations. The BCC IWL has a greenhouse. Sort of. It's a greenhouse structure, but it lacks a roof and had fallen into disuse.

Traditional breeding is a numbers game. Half the genes come from the mother, half from the father. But the breeder has no control over which genes come from which parent. To get the gene combination you want you have to generate a lot of seedlings. And only a few will have the desired genes. The more plants you can start with the better the odds of success. That's where the BCC IWL greenhouse comes in.

Our Bruce Levine began working with members of the BCC IWL Chapter to create a facility that would provide increased capacity. Blaine Elkins, a BCC IWL member lead the effort. Racks sufficient to hold approximately 1600 plants were constructed using wire fencing, a technique our chapter developed for our Baltimore Agriculture Center greenhouse work.



Because the greenhouse is open, it was necessary to protect the plants from wildlife. Chicken-wire cages were constructed around the racks. The greenhouse is configured to hold approximately 1600 seedlings. It currently houses around 500.

Recall the old saying about taking a village to raise a child. The same is true for these seedlings. BCC IWL members Patrick Twomey, Ed Staunton and Frank Parker have been stalwarts in seeing the seedlings have been watered every third day. Art Belendiuk, the BCC IWL Greenhouse chair, has also watered the seedlings whenever he was tending his vegetable garden. They all participated in the construction of the squirrel-proof enclosures and the planting of the seeds. Dan Pasquale, Jack Mandel and Jeff Seaman also helped with building the enclosures. And Ron Kuipers and Bruce Levine from MD TACF.

The greenhouse project is not our first collaboration with the Bethesda-Chevy Chase Chapter. Our chapter has maintained a germplasm (wild American) orchard on their property for a number of years. Germplasm orchards provide the chapter with a repository of mother trees. These trees represent a genetically diverse population as they come from trees throughout the state. Many of their parent trees are now dead. The germplasm orchards preserve for future use the DNA of these parent trees, some of which were quite remarkable. Blight and other problems tend to limit the useful life of the germplasm orchards. There is a continuing need to expand them.

Discussions are underway to add an additional germplasm orchard at the Poolesville location. The collaborations may continue to grow.



The Maryland Chapter's Fall Meeting online via ZOOM

Wednesday October 7, 2020 at 7 PM

Our featured speaker will be our **Tom Saielli**, TACF's Regional Science Coordinator for the Mid-Atlantic and the Southern Regions. Tom joined TACF in 2012 and is based in the Virginia Department of Forestry's Central Office in Charlottesville, Virginia. Tom currently oversees the organization's Mid-Atlantic and Southern regions which includes the eight of the sixteen TACF state chapters. He received his MS in Forest Sciences from the University of Vermont in Burlington after earning his BS in Biology and Environmental Science at the University of Colorado in 2007.

Tom will be presenting:

"Putting theory into practice: Using genotype and phenotype data to plan the ongoing Maryland Chapter breeding program"

There will also be a short business meeting with updates on orchard work, finances and elections.

All are welcome!

[Click here to join the Meeting](#)

You can participate by phone without the video via the number:
(301) 715 8592 US (Germantown)

Meeting ID: 858 2668 3793

Password: 622940

If you are new to Zoom: You will need to install Zoom on your pc or tablet. It's free. You don't need an account to participate in the meeting. But you will need the app.

Zoom will install the app automatically on your pc when you click on the meeting link, but it will take a while and can be confusing. We recommend you do it in advance. If the meeting link does not lead to the download, here is a link for a manual download: <https://zoom.us/support/download>. Google and Apple app stores have free Zoom apps available.





Chapter Annual Elections

By Dave Gill

It's time to elect Chapter Officers and Board Members for the coming year. This year the election process will be different. Due to Covid-19 limitations the election will primarily be conducted by an on-line survey tool called SURVEY MONKEY. In mid-September we will be sending an e-mail to Chapter members. Please note that the e-mail will come from **Survey Monkey@ go.surveymonkey.com**. The e-mail will provide a secure link to your Chapter election ballot. You may want to keep an eye on your e-mail spam folder in case your spam filter re-directs the email to your spam file. Besides the candidate's presented in the ballot, you have the right to write in a member's name for any of the positions.

Your vote is important. In order for a valid election to occur, a quorum of at least 25 members needs to have voted.

For those members who don't have e-mail or feel more comfortable casting a paper ballot, we have enclosed a ballot with this newsletter. If you decide to mail in the ballot, you need to mail it by October 1st. Paper ballots can be sent to:



MDTACF Nomination Committee
21900 Davis Mill Road
Germantown, MD 20876-4412





Maryland Chapter of
The American Chestnut Foundation
2020 Member Ballot

Chapter President

- Bruce Levine (Member since 2012, Chap President 2014 & 2015, VP 2016)
- Write-in _____

Chapter Vice President

- Karl Mech
- Write-in _____

Chapter Secretary

- Barbara Knapp – (Member since 2004, Chap Secretary 2004 to present)
- Write-in _____

Chapter Treasurer

- David Gill (Member since 2011, Chap President 2016, VP 2012, Treasuer 2018 to present)
- Write-in _____

Board Member:

- Dr. Gary Carver
- Ron Kuipers
- Dr. Andrew Ralowicz
- Tom Vegella
- Larry Grossman
- Write-in _____

Chapter Member Name: _____

Mail to: MDTACF Nomination Committee

21900 Davis Mill Road
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Thank you for your continued support.
Maryland Chapter Of
The American Chestnut Foundation

