



THE FALL HARVEST WAS OUTSTANDING

American Chestnut Foundation Maryland Chapter Newsletter *Fall 2015*

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Message from the New Chapter President

By Dave Gill

I am looking forward to an interesting year as the new President of the Maryland Chapter of the American Chestnut Foundation. Bruce Levine and Gary Carver have done a terrific job as President and Vice President for the last two years. I, for one, want to thank Bruce for his leadership and willingness to serve as Vice President this year. His experience will be of great benefit to me as I move into my new role.

As for a little history on myself, I joined the Maryland Chapter in 2011. My interest in returning the chestnut to its former glory was kindled as I hiked the Appalachian Trail in 2010. I witnessed the many stumps of these magnificent trees and realized what a loss had occurred to our environment. It was Gary Carver who introduced me to the work of the Chapter and since then I have

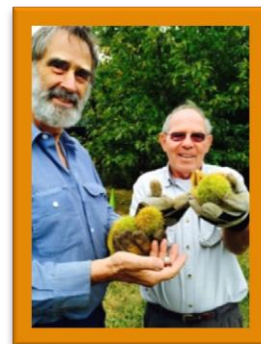
learned “the ropes” by taking on a number of tasks within the organization.

The coming year will present the Chapter with new challenges, such as establishing a new seed orchard in the spring. As we move toward more open pollination for seed production, there will be an increased need for volunteers to help with culling orchards and harvesting larger volumes of seeds. Your willingness to generously give your time to such efforts continues to make this organization one of the outstanding Chapters in the Foundation. I hope I can count on your support in the coming year and look forward to meeting you at future events.



2015 Harvest Report

It was a great year for seed production, as can be seen on the smiling faces of Joe Dickey and Ron Kuipers as they harvest the Dickey Orchard.



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2015 Harvest Report

By Ron Kuipers

This year's annual harvest exceeded expectations and wrapped up early at the end of September. At that time, there were still open and closed burs in the backcross orchards, but we had already collected more seeds than we think we will be able to plant next spring. There were two main reasons for the great harvest. First, we had lots of enthusiastic members and organizations that came out on the picking dates. We were also greatly helped by the donation of bucket trucks and crews. Montgomery Parks supplied trucks for the Thalia Howard tree and Pepco and its contractor Asplundh for the three tallest trees in the Dickey Orchard. The Asplundh crew included Holly Widener, Jose Galicia, and Pedro Ramos, who worked tirelessly all day to bring in the harvest.

The second reason occurred back in May and June when an equally large



number of volunteers helped cull nearly a thousand trees in the Dickey/Blaxall and Fox Haven orchards. This eliminated the need for hand pollination and allowed open pollination of all the saved trees.

The two tables below reflect the total Clapper B3F2 seeds in storage for spring planting in the Washington

Suburban Sanitary Commission (WSSC) and Central Research and Education Center (CMREC) seed orchards

Fox Haven Orchard Results

Breeding Line	Number of Seeds
Yater	950
SW 805/901	877
Manahan	337
Hawker Hill	595
Knapp	430
Total	3,189

Dickey/Blaxall Orchard Results

Breeding Line	Number of Seeds
Corrigan	1,408
Prowell	1,169
Peters	170
SE 831	322
Total	3,069

Total BC3 Seeds in Storage for Spring Planting in Musick Orchard

Monocacy tree #330- 215 nuts
Thalia Howard tree – 250 nuts
Total Haines F1s – 30 nuts

Total Sugarloaf East Americans – 5000 + nuts.

In a best-case scenario, these seed totals would allow us to plant up to 28 plots of 150 seeds each in our two seed orchards—19 plots at WSSC and 9 plots at CMREC. We also have to establish a new Musick Orchard for 200 backcross seeds plus controls. That's about 4,500 seeds. In comparison, this past spring we planted about 700 seeds and I thought that was a good effort. Clearly, we will have to get a big head start on preparations and bring in more outside volunteers for planting this coming year.

I extend a hearty thanks to all who have helped to bring our breeding program so far. Please stay tuned for periodic projects this fall and winter and mark your calendar for prepping and planting season next spring, likely the weekend of April 2-3.

Two New Orchards

As some of you may know, the Chapter established its first seed orchard on Washington Suburban Sanitary Commission (WSSC) land near Tridelphia Lake in 2012. Our breeding orchards have matured enough that we are ready to expand our seed orchard operations. The Chapter recently reached agreements that will allow us to establish two new orchards.

The first new location will be a seed orchard located on two acres at the University of Maryland's Central Research and Education Center (CMREC) near Columbia, MD. This orchard will contain trees descended from the Clapper source of resistance. This spring we plan on putting in 9 plots of 150 trees each. Dave Gill will be the orchard steward.

The second orchard will be located on a two-acre plot at the U.S. Department of Agriculture Research Farm in Beltsville, MD. The orchard will house trees descended from the Musick source of resistance. Initial plantings this spring will be around 200 seeds. The orchard co-stewards are Peggy MacDonald and Perry Cregan.

Passing of Bob Benson

Robert Benson, an active member of our Chapter, passed away unexpectedly on July 1, 2015. Bob was a biochemist and lifelong conservationist with particular interests in scouting and restoring the American chestnut tree. He raised hybrid chestnuts on his mountain property in Virginia and as President of the Bethesda-Chevy Chase (BCC) Chapter of the Izaak Walton League of America, he partnered with our Chapter to establish an American chestnut orchard on BCC property in 2013.

Bagged vs. Open Pollination



After eliminating less resistant chestnut trees in our breeding orchards, we are left with parent trees to produce B₃F₂ seeds for our seed orchards. Until this year the process of pollinating such trees involved a lot of manpower and some inventive methods.

The typical procedure involved collecting catkins in early June to obtain the pollen to be used on selected trees. Then, we closely monitored the development of the flowers on the target trees. Before the flowers became receptive, volunteers would bag them on the trees to prevent premature fertilization. Ten to twelve days later we would unbag the flowers, hand-pollinate them, rebag, and hope for the best. It was a labor-intensive and sometimes disappointing process in the fall if we found that the seeds did not develop or pollination had occurred prior to our efforts.

This year, the Chapter tried a new method called open pollination. This method requires the removal of all trees in the orchard except the ones we use for breeding. This can be done at the point in the breeding

program where we intercross third backcross trees with each other. This approach requires much less manpower for pollination and significantly increases seed production. However, there are limitations to this approach. The movement of pollen is generally via wind action, so we have to be concerned with the locale of non-desirable chestnut trees within range of the orchard.

Our first year of using this approach on the Dickey and Fox Haven orchards resulted in very good seed production. However, depending on individual orchard environments, we will continue to sometimes utilize the bagging method to meet the needs of our seed orchard development plans.

Delmarva Restoration Branch – 2015 Update

The goal of the DRB is to identify and preserve American chestnut survivors and to promote educational and scientific research efforts directed at restoring American chestnuts on the Delmarva Peninsula. In practical terms, the DRB would like to plant a mother tree orchard of Delmarva coastal plain American chestnuts with material from wild trees or through grafting wild American chestnut sprouts onto Chinese or American root stock.

During 2015, the Delmarva Restoration Branch (DRB) worked to improve and consolidate ongoing projects and lay the groundwork for new initiatives and partnerships. The DRB accomplished this via several

outreach efforts. The DRB Facebook site (<https://www.facebook.com/DelmarvaRestorationBranchACF/?fref=ts>) is used to post TACF/DRB-related photos and articles. The Branch also sends out informative email to DRB members and interested parties. These efforts are reaping benefits with several organizations, including the Center for the Inland Bays, which expressed an interest in supporting the DRB and TACF. The Inland Bays Center is engaged in substantial reforestation projects in coastal areas that are known to have been within the traditional range of the American chestnut.

The American chestnut seeds planted at two sites in 2015 have done fairly well given the extremely dry conditions over the summer and the usual problems of weeds, insects and difficult planting sites. About half of the American chestnut seeds planted at the Chapel Branch Nature Preserve of the Nanticoke Watershed River Conservancy and the Delaware Nature Society's Abbott's Mill site survived the summer. These sites will be replanted with available pure



Pictured (left to right): Ed Crawford, Ken Covey, and Bob Ellingsworth with the Delmarva Restoration Branch

American chestnut seedlings and additional work will be done to protect against wildlife and control weeds.

The problems associated with growing chestnuts at these sites was a good learning experience, as was the failure to sprout by all 50 nuts provided to the Blackbird Creek

Preserve organization in Middleton, DE. Why they did not sprout remains unknown. If available, additional nuts will be offered to this organization, which is undertaking valuable re-forestation work in Delaware.

We Need Your Help!

As the chapter develops seed orchards to help with future reforestation efforts, we need more help.

Volunteers are needed in a variety of areas within the chapter. Contact Ron Kuipers or Dave Gill at Mdtacf@acf.org if you can help. If you have the time and/or the talent we could use your help in these areas:

- **Orchard Work** – Whether planting, weeding, watering, harvesting, cutting down trees, building fences, or harvesting nuts, we will need large work parties this coming year. Most efforts will focus on the Washington Suburban Sanitary Commission seed orchard at Triadelphia Lake and the new orchards near Columbia and College Park.
- **Presentations** – Do you enjoy developing slide presentations, manning information booths at events, or speaking to small civic groups? We need your help!
- **Newsletter** – We need article writers, editors, and those with experience in building e-newsletters.
- **Grant Writers** – If you have experience writing grant request, we could use your skills.



Donations of either funds or services are always in short supply. In the past, the chapter has worked with a number of generous members and organizations to meet these needs. Through those efforts we have been able to expand our orchards and get closer to the restoring the American Chestnut. The coming year will be challenging with the establishment of two new orchards as well as the wrap-up of several other orchards. In particular we are looking for funds or services in the following areas:

- Fence materials
- Use of bucket trucks during pollination and harvest times
- Stump grinding equipment for clearing infected trees from the orchards
- Potting materials for starting seeds in the spring

If you can help in any of these areas or know someone who would be willing to lend a hand, please contact any of the chapter officers listed at the end of this newsletter.

Special Thanks

A BIG THANKS to:

- Larry Kenney of Ashton, MD, for donating his time and stump grinder to remove more than 300 stumps in the Dickey/Blaxall Orchard.
- Sara Fitzsimmons (American Chestnut Foundation Science

Coordinator) for her presentation at the annual chapter meeting on current studies of optimal planting sites for restoration seeds on the East Coast.

- The folks at Fox Haven Farm for allowing the chapter to hold its annual meeting in their excellent learning center.

MDTACF Calendar of Events 2015/2016

Membership Meetings

- March 12, 2016 – 11AM – Spring Meeting
- October 1, 2016 – 11AM – Annual Meeting

Board Meetings

- December 12, 2015 – 10AM
- March 12, 2016 – 10AM
- June 11, 2016 – 10AM
- September 10, 2016 – 10AM

Orchard Work

- December 2015 – Orchard clearing work at Damascus Orchard
- December 2015 – Fence building at Beltsville Orchard
- First two weeks of April 2016 – Plant orchards in Columbia, MD and Beltsville, MD

Chapter Officers

President – Dave Gill

Vice President – Bruce Levine

Secretary – Barbara Knapp

Treasurer – Emilie Crown

Contact Us at

MDtacf@OUTLOOK.COM