

American Chestnut Cooperators' Foundation

2016 Newsletter

Chestnuts from the 2017 harvest will not be mailed to growers. Growers will come and pick their own nuts or arrange to get nuts from a nearby designated ACCF member who volunteers to pick for others. Growers will have to process their own chestnuts in the hot water bath at 120F for 20 minutes to kill weevil larvae. All who share in future crops must submit a new Grower Agreement Form including a pledge to have the number of planting holes and cages ready for October planting and permission to pass your email address to others for the purpose of chestnut distribution. In September, we shall email, to all growers who have submitted the new form, the dates of open harvest mornings, which will probably be Mondays and Wednesdays, with a Saturday thrown in if nuts are dropping when there is no home football game. We hope you may be able to cooperate with this new arrangement.

Dear Friends and Cooperating Growers:

GROWER REPORTS:

Many, many thanks to the 198 growers who, this past fall and winter, have reported a total of 3,438 ACCF chestnuts and 22 grafts surviving, for a most gratifying leap forward into positive reporting territory.

My 2016 census in Virginia counts 947 chestnuts of which over 100 were planted last fall from the 2015 harvest or grafted this past spring. They are spread among 19 research plots, mostly in National and State forests, and we have regular maintenance help in only six of these plots. I write this last sentence, so you may better understand why we do not join any social media sites and are sometimes late responding to your important email questions.

HARVEST:

From our 2015 harvest, 104 cooperating growers planted 1,526 chestnuts. Because harvesting went on from September 9 through 30, I planted in small nursery cages at least 200 additional nuts, mostly from the earliest chestnuts which I could not store and did not have time to process and send out, since the harvest was still

ongoing. Rodents got nearly half of my nursery chestnuts, but I shall have enough small seedlings to plant all the empty spaces in the plot described below, and also to supply our best grower, **Carol Croy**, whom I forgot in the mad rush to get that last harvest into the mail.

More thanks to harvest helpers **Bill & Ruth Valentine, Mr. Angelo Trivisomo, Carl Absher, Iain Waugh, David Munn, Cathy & Richard Stoffer.**

It appears that the coming harvest may be smaller than last year: many of the large bearing chestnuts in one of our breeding orchards have noticeably fewer burs and on a few I don't see any. This happens when persistent, heavy rains fall in June, early July, or both, causing poor pollination. Thus, we are unlikely to need harvest help this fall, except possibly on weekdays between September 19 and 23. As usual, we work on weekday mornings from 9 to 12 noon. To volunteer please contact me in early September via email at allaccf@gmail.com

A PRECAUTIONARY VIRTUAL TOUR:

In the winter of 2015-16, we lost many chestnuts in a new plot, which Tree Experts created on a steep, wooded, rocky slope above 460. They cut down nearly all the trees and poisoned all onsite and nearby ailanthus and paulownia. They left 2-foot stumps to hold several large trunks horizontally across the slope for erosion prevention and worker resting places. They marked with stakes forty planting places on the upper, sunnier half of the clearing, carried up protection cages, dug the first 30 holes among the rocks in deep sandy-loam, and planted two chestnuts per hole, as I had requested because most of the 50 chestnuts I had planted the previous winter along the quarter-mile trail leading toward this plot had been stolen by rodents and also because at this time we were focused on getting as much as possible of the surplus harvest into the ground, to avoid losses in storage. Volunteers helped me dig and plant the last 10 holes as well as, re-digging the empty holes along the trail and adding some new ones there. I put three chestnuts in my holes, so altogether, we planted more than 80 chestnuts, of which 11 survive in six cages, thus: three, two, two, one, one, one. The singles surviving, clearly fooled the rodents, while they probably just lost track of which cages they had raided in the case of multiple chestnut survivals.

Unfortunately, birds like to roost on cages and, by the way, plant whichever kinds of wild berries they have lately been eating, so new plots require special attention.

Among the briars I found many self-sewn tulip poplars, maples, hickories, oaks, and of course, ailanthus and paulownia, as well as, tall grasses, equally capable of shading out small chestnuts. Weeding is easiest in early morning following a soaking rain. It took three such mornings to clear the plot sufficiently for making an accurate chestnut census.

I also unearthed acorns and many more hickory nuts before noticing that the tall, straight 10-inch trunk left standing in the upper right --because it is a beauty and only its trunk casts shade in the plot-- is a bearing hickory. No wonder the resident rodents are well-schooled gourmet nut-hunters.

Thanks again to Tree Experts, **Scott & Jenny Abla**, and to the volunteers, **Eli Lewis**, **Elizabeth Cooper** and **Alexander Franke** who broke the ground to made this planting possible. You may be sure your hard work will amount to something: we shall re-dig all the empty holes and treat the perimeter of all cages as described below; next, at dormancy this coming fall, we shall transplant the resident extras into holes nearest their home cages, and finally, into remaining empty cages, we shall transplant my 2015 nursery seedling surplus. This past year, nearly all successful transplants that replace losses along the lower trail were made in this way.

RODENT CONTROL:

It is recommended to presume your chestnuts may be stolen by rodents. Eight-inch-tall tree shelters, driven three inches into the prepared ground inside the protection cage and covered with fine netting are usually effective deterrents, but they are worse than useless when you have raccoons because they clearly mark the location of the prize. Where shelters are not a good idea, always tightly pack the soil inside the cages, including atop your unprotected chestnut(s), by stamping down with all your weight. Even when using tree shelters, this is a good idea.

If pets are loose nearby, before planting chestnuts, we advise **Repels All** which deters by scent, thus, should be applied by locating tunnels: drive a stake into the soil at short intervals around the outside of the cage and pour a small helping of repellent into each hole, wherever the stake went down easily. Where it is safe to use poison, we have recommended **Prozap**, applied the same way as above. However, this product is no longer available at our local Feed & Seed, so we have

switched to **Sweeney's Poison Peanuts Pellets**, which should work as well, if not better. We shall see.

Thanks to **Harry Cooper** for rodent control in the Mountain Lake breeding orchard. And thanks to **James Raitmaier**, the outstanding cooperater who warned me last summer that mothballs can poison trees as well as rodents.

INSECT CONTROL, especially for Southern and mid-Atlantic growers:

This spring and early summer, insects have given much more trouble than usual: in rapid succession, we found widespread evidence of **ambrosia beetle** (pinholes in bark), **gall wasp** (deformed leaves, crumpled around a swollen, often pink gall) and **cicada** (numerous slits in the bark of smaller branches and twigs) in many of our research plots and breeding orchards.

An annual treatment with **Bayer Advanced Tree & Shrub** (BAS&T), is capable of controlling these insects, if properly applied. Measurement of the circumference of trees at breast height determines the amount of product to be used. When the soil is dry, the required amount of liquid concentrate is mixed in a gallon of water, and the drench is applied in a circle around the trunk. This year a granular version of the same product came on the market, applied similarly, except the granules are sprinkled directly on the weed-free soil. The application is then watered, but it takes much less than a gallon of water to wet all the granules. Either way, it is very expensive, requiring lots of time, and also high-priced, so if you decide to try it, get your time and money's worth by reading the label first.

Since water must be carried, usually quite a distance and often uphill, to nearly all our plots, we have switched to the granules. In past years, I have limited use of this product to grafts, planning to protect them from their second spring onward until they no longer have smooth bark within reach because grafts are not easily replaced and they can be totally destroyed when the blight fungus enters wounds in a smooth-barked trunk, while a tree that is not a graft can be cut at the base, the infested part burned or bagged and buried, but it will re-sprout and grow much more rapidly than a nut or newly transplanted seedling. Before I learned about BAS&T, that is what I did to remove infested seedlings and grafts from our yard and in the breeding orchards. However, in the forest plots, down at ground level it is much more difficult to maintain the sunshine exposure required for rapid regeneration. Also, our yard and several of the research plots contain new breeding

lines with potential that cannot be evaluated until they reach at least 1.5 inches in diameter at breast height, are attacked by the blight fungus and the canker development has been observed through several years which include at least a few very severe winters and springs. For these reasons, this year I also undertook treatment of all the yard seedlings and those in three of our forest research plots in which the chestnuts are small, none have flowered and none have yet been attacked by the blight.

Two workers are better for applying the BAS&T treatment. Thanks again to **Victoria Lewis** who made the job go much faster in our Airport breeding orchard.

GRAFTING:

I made 51 whip grafts, of which just 3 are growing; one is still inside its cage because a deer ate the top before I got around to replacing its shorter cage with a 5-footer. Another, growing on a very steep slope, is over six feet tall, and its leader is doubly protected with an extra cage laid against the uphill side of its 5-foot cage, just in case a very tall deer should pass that way. These whip grafts were executed March 28 & 31 and April 7, or late and very late in our usual window of opportunity for whip-grafting. In future I shall not begin whip-grafting for at least two weeks following any deep freeze in March, and make up the difference later.

Unsatisfied with this paltry result, I returned to the bark graft. Because of difficulty making clean cuts across the small stocks (I prefer), my expectations were low for the first nine bark grafts, but two are growing. Then I ordered a folding pocket saw, which did not tear the slipping bark. Among nine more bark grafts made using my new tool, April 27 & 28, six more are growing.

Since 1991, altogether **79** of my grafts survive, **32** will bear nuts this fall, and four others have made their first catkins.

POLLINATION can be fully or partly controlled. Last summer, **Eric Hanson** made controlled pollinations: spray water on flowers within reach, using a damp paintbrush dipped into a zip-lock bag of pollen, brush pollen onto the flowers, then enclose pollinated flowers in bags.

This summer, **Harry Cooper** threw a rope line over a limb 15 feet up the trunk of a yard chestnut, to which I later attached a half-gallon jug of water holding a bouquet of catkins and hauled the catkins much closer to the flowers than my last year's try.

Lise Cooper and **Matthew Griffin** removed all catkins from a few trees in a small planting, to make possible only the desired intercusses; and while I held down the flagged branches, Matthew tied long catkins around the flowers within reach.

Traditional controlled pollination methods produce very few if any chestnuts, depending on whether flowers are receptive when pollinated. Without bags, letting wind and bees finish the job, many more chestnuts are produced. Thanks again to Eric, Harry, Lise and Matthew for this as well as other, much more arduous or rather boring work in our forest research plots.

I no longer let helpers weed inside cages, never forget to give thanks that I can still do this job myself, so I may note when first blight cankers appear (usually at the base), follow their development and bring Gary's attention to outstanding or questionable results, for a decision whether the seedling should be grafted or cut at ground level for a second, clean chance via its best new sprout. From the beginning, we chose to involve our family in the chestnut work. Most volunteers we have cited are family members, raised to pitch in. This has proved convenient because we rarely know in advance when help may be required, but can always ask for it when they visit. We hope your chestnut project may benefit from similar volunteer helpers and look forward to reading your reports.

Respectfully submitted,

Lucille Griffin, Executive Director

Other ACCF Directors

Gary Griffin, President, Plant Pathology, Virginia Tech

Ed Greenwell, Vice President & Director of Tennessee chestnut projects, Electrical Engineer, New Johnsonville, TN

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Dedicated to the restoration of American chestnuts